611-CD-001-001

EOSDIS Core System Project

Interim Release 1 (Ir1) Operator's Manual for the ECS Project

December 1995

Hughes Information Technology Corporation
Upper Marlboro, Maryland

Interim Release 1 (Ir1) Operator's Manual for the ECS Project

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Preface

This document is a contract deliverable with an approval code of 3. This document is delivered to NASA for information only, but is subject to approval as meeting contractual requirements.

Any questions should be addressed to:

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Abstract

This is the Interim Release One (Ir1) Operator's Manual for the ECS. This document will contain procedures and information that are needed to operate the Ir1 system. The ECS Interim Release One System (Ir1) will be deployed January 2, 1996 at three of the Distributed Active Archive Centers (DAACs) GSFC, EDC, and LaRC. It will be an incremental release leading to Release A. Ir1 has the primary objectives of (1) supporting science software integration and test, and (2) supporting early TRMM interface testing. In addition, Ir1 will provide an infrastructure of basic hardware and system software that will be reused in Release A.

The procedures described in this document will consist of basic system administration procedures and hardware maintenance procedures needed by the Maintenance and Operations (M&O) staff to achieve the Ir1 objectives.

Keywords: Operations, DAACs, Mission Support, Ir1, TRMM, science software integration and test (SSI&T), system administration

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1. Introduction

The Earth Observing System (EOS) Data and Information System (EOSDIS) Core System (ECS) Interim Release 1 (Ir1) will be deployed to three sites and the ECS Development Facility (EDF) by January 2, 1996. The four sites are Goddard Space Flight Center (GSFC), Langley Research Center (LaRC), and Earth Resources Observation System (EROS) Data Center (EDC). The main purpose of the Ir1 system is to support Science Software Integration and Test (SSI&T) activities and to support the Tropical Rainfall Measuring Mission (TRMM) Interface testing in October of 1996. In addition, Ir1 will provide an infrastructure of basic hardware and system software that will be reused in Release A. The Ir1 system will not be an operational system.

1.1 Identification

This document is submitted as Contract Data Requirements List (CDRL) item 117, DID 611/OP3 under contract NAS5-6000.

1.2 Purpose and Objectives

The purpose of the Ir1 Operator's Manual is to detail the major operations procedures and operations instructions that M&O System Administrators need to know to support the objectives of the Ir1 delivery. Operations procedures are defined as the step by step commands or on-line procedures needed to perform a function. The Operations Instructions are the off-line procedures or directives for performing administrative, operations, management or operations support activities, e.g. Configuration Management, Problem Management, Performance Reporting, etc. This document will also be used as a training aid for M&O staff that are located at the sites.

1.3 Scope

This document is limited to the operations procedures and instructions that the Maintenance and Operations (M&O) staff will need to achieve the Ir1 objectives. Since Ir1 is not an operational release, (the system is used for testing with no products being produced), the M&O functions will be relegated to mainly system administration type activities. The testing of the system and science software will be the responsibility of the developers, Science Office, and Instrument Teams (ITs) and the procedures for this testing will be documented in their test plans. However the M&O support for this testing will be documented in this document.

1.4 Document Organization

The contents of this document are organized as follows:

Section 1 — Introduction - Introduces the ECS Ir1 Operator's Manual purpose and objectives, scope, and document organization.

Section 2	Related Documentation - Provides a bibliography of reference documents that are related to the Operator's Manual. These documents may be ECS documentation, COTS user guides, and ESDIS procedures.
Section 3	Overview of Procedures- Provides a short description of the operations procedures that are contained in this document.
Section 4	Operations Procedures- Provides the step-by-step procedures used to support Ir1. These procedures will be organized by site and type of procedure.
Section 5	Operations Instruction- Provides the Instructions, directives, and/or policies needed by the operations staff for support of the Ir1 system.

The following is the operations procedure numbering scheme:

NpXXX-YY

where N indicates the site:

N = A-ASF
E-EDC
F-EDF*
G-GSFC
J-JPL
L-LaRC
N-NSIDC
O-ORNL
S-SMC*
Z-all sites

* For Ir1 the EDF and the SMC are the same site.

Where XXX indicates the unique procedure number, subdivided into operations functions

XXX = 100's-System Administration Functions
200's-Hardware Maintenance
300's-Ingest
400's-Production
500's-Archive
600's-Distribution
etc.

and YY indicates the version number of the procedure.

The following is the operation instruction numbering scheme:

NiXXX-YY

where N indicates the site:

N = A-ASF
E-EDC
F-EDF*
G-GSFC
J-JPL
L-LaRC
N-NSIDC
O-ORNL
S-SMC*
Z-all sites

* For Ir1 the EDF and the SMC are the same site.

Where XXX indicates the unique instruction number, and YY indicates the version number.

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2. Related Documents

The parent documents are the documents from which the scope and content of this Ir1 Operators Manual are derived.

609-CD-001-001	Interim Release 1 Maintenance and Operations Procedures for the ECS Project
423-41-02	Goddard Space Flight Center, Functional and Performance Requirements Specification for the Earth Observing System Data and Information System (EOSDIS) Core System (ECS)

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3. Overview of Procedures

Zp101-00 Cold Start-up

These procedures document how the operator starts the system with no subsystems previously running.

Zp102-00 Warm Start-up

The following procedure documents how the operator can restart some subsystems while not effecting other subsystems.

Zp103-00 Normal Shut-down

The following procedure will document a normal shut down that will not result in the loss of data.

Zp104-00 Emergency Shut-down

The following procedure details how to shut down the system in emergency situations with minimal loss of data.

Zp105-00 Incremental Backup

This procedure describes how the operations staff performs incremental backups of files that are on the ECS system for that site.

Zp106-00 Complete System Backup

This procedure describes how the operations staff performs complete system backups of files that are on the ECS system for that site.

Zp107-00 Restore Selected Files

This describes how to restore selected files on the system.

Zp108-00 Complete System Restore

This procedure describes how to restore the complete ECS system from backup tapes at an individual site.

Zp109-00 Adding UNIX Users

This procedure details the commands that the M&O staff will use to add UNIX users to the systems located at the sites.

Zp110-00 Deleting UNIX Users

This procedure details the commands that the M&O staff will use to delete UNIX users to the systems located at the sites.

Zp111-00 Changing UNIX User's Privileges

This procedure details the commands that the M&O staff will use to change a UNIX user's privileges to the systems located at the sites.

Zp112-00 Creating and configuring a VOB using ClearCase

This procedure details the execution of the script for creating a Versioned Object Base (VOB). The VOB will be used to store and configure the delivered software.

Zp113-00 Installing and configuring software using ClearCase

This procedure details the ClearCase commands that the M&O staff will use to install and configure software (ECS and Science software) at the sites.

Zp114-00 Creating Views using ClearCase

This procedure details the ClearCase commands that the M&O staff will use to allow the Instrument Teams and the ECS sustaining engineers a view of only the configured software that they are responsible to maintain or modify.

Zp115-00 Checking out Configured Software

This procedure details the ClearCase commands that the M&O staff will use to allow the Instrument Teams and the ECS sustaining engineers to access the configured software/modules that they are responsible to maintain or modify.

Zp116-00 Checking in Software and Merging the Configured Software

This procedure details the ClearCase commands that the M&O staff will use to merge in modified software to the configured software to create a new version of that software.

Zp117-00 Backing up the VOB

This procedure details the ClearCase commands that the M&O staff will use to backup the VOB before a merge takes place.

Zp118-00 Changing a Workstation's IP Number (for a Solaris machine)

This procedure details how the M&O staff can change IP numbers on the Sun computers running a Solaris operating system.

Zp119-00 Freeing disk space

This procedure details how the M&O operator can delete old or unused files from the system to retrieve disk space.

Fp101-00 Adding DCE Users

This procedure details the commands that the M&O staff will use to add DCE users to the systems located at the sites.

Fp102-00 Deleting DCE Users

This procedure details the commands that the M&O staff will use to delete DCE users to the systems located at the sites.

Fp103-00 Changing DCE User's Principle Information

This procedure details the commands that the M&O staff will use to change a DCE user's principle information to the systems located at the sites. The principle information associates the userid with the user's name.

Fp104-00 Changing DCE User's Account Information

This procedure details the commands that the M&O staff will use to change a DCE user's account information to the systems located at the sites. The account information includes the account group, account organization, and home directory. This mechanism can be used to added or subtract user privileges from the system.

Fp105-00 Configuring DCE Client with a new IP Number

This procedure details the commands that the M&O staff will use to configure the DCE clients with new IP numbers. This can be used to change the domain of the DCE cell.

Fp106-00(a) Changing DCE Privileges on Directories (from command line)

This procedure describes how the M&O operations staff changes the read/write/execute privileges on a directory for DCE users. This procedure uses commands issued on the command line)

Fp106-00(b) Changing DCE Privileges on Directories (from menu)

This procedure describes how the M&O operations staff changes the read/write/execute privileges on a directory for DCE users. This procedure uses commands issued through the DCE menu driven interface.

Fp107-00 Configuration of the DCE Client

This procedure describes how the M&O operations staff configures the DCE clients on workstations/servers that have been assigned to the DCE cell.

Fp108-00 UnConfiguration of the DCE Client

This procedure describes how the M&O operations staff unconfigure the DCE clients on workstations/servers that have been assigned to the DCE cell.

Fp109-00 Remote login to a workstation

This procedure describes how the M&O operations staff performs can perform a remote logins to the sites/different machines.

4. Operations Procedures

Operations procedures include the in-line procedures that are used by the M&O staff for the every day system administration functions. These procedures detail the actual commands issued and the results.

Zp101-00 Cold Start-up (TBD)

Step #	Purpose	Action	Comment
1			
2			
3			
4			
5			
6			
7			
8			

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Zp102-00 Warm Start-up (TBD)

Step #	Purpose	Action	Comment
1			
2			
3			
4			
5			
6			
7			
8			

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Zp103-00 Normal Shut-down (TBD)

Step #	Purpose	Action	Comment
1			
2			
3			
4			
5			
6			
7			
8			

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Zp104-00 Emergency Shut-down (TBD)

Step #	Purpose	Action	Comment
1			
2			
3			
4			
5			
6			
7			
8			

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Zp105-00 Incremental Backups

Step #	Purpose	Action	Comment
1	login to machine to be backed up	**login to machine**	machine must be installed as a Networker client (login can be direct or remote)
2	login as root	**<su>**	must be logged into UNIX user account first, password prompt appears
3	enter root password	**<*root password*>**	authenticates self as superuser
4	preliminary information required		- Networker server name - terminal IP address or hostname
5	set display to current terminal	**<setenv DISPLAY IPNumber:0.0>** **or** **<setenv DISPLAY hostname:0.0>**	sets display to current terminal
6	execute Networker backup software	**<nwbackup -s *server_name* &>**	starts up Networker GUI application root file system (/) should appear in first column
7	scroll through directory list to find designated items to be backed-up	**<click> with mouse**	drag scroll bar with mouse to scroll up & down list click on directory name to open & list directory contents - or - select "Expand One Level" from the Tree menu to expand a directory contents
8	select items to be backed up	**<click> with mouse**	click to put an x in the box to the left of the file/directory name to select it for backup putting an "x" in a directory selects the entire directory contents
9	un-select any extraneous items	**<click> with mouse**	click again to remove x from extraneous items

Step #	Purpose	Action	Comment
10	start backup	**<click>** START button with mouse	start backing up complete file system to device attached to designated Networker server backup options dialog box appears
11	choose whether to have files compressed during backup	**<click>** Yes or No radio button with mouse	choose whether to have file compressed during backup
12	click ok button to continue	**<click>** OK button with mouse to continue backup	backup status window appears to monitor the status of backup if you do not see files scrolling in display (or if error message appears contact senior system administrator or SEO) status message appears informing you of backup completion - an index has been created on the Networker server for your client
13	click cancel button to close status window	**<click>** cancel button with mouse	file(s) have been backed up to Networker server
14	exit Networker backup program when completed	**<select>** EXIT option from File menu	exits Networker Backup utility

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Zp106-00 Complete System Backup

Step #	Purpose	Action	Comment
1	login to machine to be backed up	**login to machine**	machine must be installed as a Networker client (login can be direct or remote)
2	login as root	<**su**>	must be logged into UNIX user account first, password prompt appears
3	enter root password	<***root password***>	authenticates self as superuser
4	preliminary information required		Networker server name
5	set display to current terminal	**<setenv DISPLAY IPNumber:0.0>** **or** **<setenv DISPLAY hostname:0.0>**	sets display to current terminal
6	execute Networker backup software	**<nwbackup -s *server_name* &>**	starts up Networer GUI application root file system (/) should appear in first column
7	select entire file system (/) to be backed up	**<click>** with mouse	click to put an x in the box to the left of the root file system to select entire system to be backed up putting an "x" in a directory selects the entire directory contents
8	start backup	**<click>** START button with mouse	start backing up complete file system to device attached to designated Networker server backup options dialog box appears
9	choose whether to have files compressed during backup	**<click>** Yes or No radio button with mouse	choose whether to have file compressed during backup

Step #	Purpose	Action	Comment
10	click ok button to continue	**<click>** OK button with mouse to continue backup	backup status window appears to monitor the status of backup if you do not see files scrolling in display (or if error message appears contact senior system administrator or SEO) status message appears informing you of backup completion - an index has been created on the Networker server for your client
11	click cancel button to close status window	**<click>** cancel button with mouse	file(s) have been backed up to Networker server
12	exit Networker backup program when completed	**<select>** EXIT option from File menu	exits Networker Backup utility

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Zp107-00 Restore Selected Files

Step #	Purpose	Action	Comment
1	login to machine to be restored	**login to machine**	machine must be installed as a Networker client (login can be direct or remote)
2	login as root	**<su>**	must be logged into UNIX user account first, password prompt appears
3	enter root password	**<*root_password*>**	authenticates self as superuser
4	preliminary information required		Networker server name IP number or hostname of current terminal
5	set display to current terminal	**<setenv DISPLAY IPNumber:0.0>** **or** **<setenv DISPLAY hostname:0.0>**	sets display to current terminal
6	execute Networker recover software	**<nwrecover &>** or **<Double-click>** NW Recover icon	starts up Networker recover GUI application current directory appears in left-hand column
7	scroll through directory list to find designated item(s) to recover	**<click>** with mouse	drag scroll bar with mouse to scroll up & down list click on directory name to open & list directory contents - or - select "Expand One Level" from the Tree menu to expand a directory contents
8	select item(s) to recover	**<click>** with mouse	click to put an x in the box to the left of the directory/file(s) to recover
9	un-select extraneous items not to be recovered	**<click>** with mouse	click again to remove x from extraneous items
10	start restore	**<click>** START button with mouse	Conflict resolution dialog box appears

Step #	Purpose	Action	Comment
11	choose whether to be notified when a conflict appears	**<click>** YES or NO radio button	select whether to be notified when a conflict occurs
12	choose what to do when a conflict occurs during recovery process	**<click>** appropriate radio button for selection	Select one of the three options: - Rename the recover file - Discard the recover file - Overwrite the recover file
13	click ok button to continue	**<click>** ok button	the recover status window appears, providing information about the recovery a recovery complete message appears when recovery is finished
14	quit Networker recover program when completed	**<select>** EXIT option from File menu	exits Networker recover utility

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Zp108-00 Complete System Restore

Step #	Purpose	Action	Comment
1	login to machine to be restored	**login to machine**	machine must be installed as a Networker client (login can be direct or remote)
2	login as root	**<su>**	must be logged into UNIX user account first, password prompt appears
3	enter root password	***<root_password>***	authenticates self as superuser
4	preliminary information required		Networker server name IP number or hostname of current terminal
5	set display to current terminal	**<setenv DISPLAY IPNumber:0.0>** **or** **<setenv DISPLAY hostname:0.0>**	sets display to current terminal
6	execute Networker recover software	**<nwrecover &>** or **<Double-click>** NW Recover icon	starts up Networker recover GUI application root file system (/) should appear in left-hand column
7	start restore	**<click>** START button with mouse	Conflict resolution dialog box appears
8	choose whether to be notified when a conflict appears	**<click>** YES or NO radio button	select whether to be notified when a conflict occurs
9	choose what to do when a conflict occurs during recovery process	**<click>** appropriate radio button for selection	Select one of the three options: - Rename the recover file - Discard the recover file - Overwrite the recover file
10	click ok button to continue	**<click>** ok button	the recover status window appears, providing information about the recovery a recovery complete message appears when recovery is finished
11	quit Networker recover program when completed	**<select>** EXIT option from File menu	exits Networker recover utility

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Zp109-00 Adding UNIX Users

Step #	Purpose	Action	Comment
1	login to NIS master machine	**telnet *nismaster* -or-** **rsh *nismaster***	
2	login as root	<**su>**	must be logged into UNIX user account first, password prompt appears
3	enter root password	<***root password***>	authenticates self as superuser
4	execute script to add users	**</usr/newuser>**	runs script to create new user account
5	enter first name	**<*first_name*>**	
6	enter last name	***<last_name>***	user account is created, home directory is assigned to least used partition
7	enter password	**<*password*>**	assign a password to the user
8	re-enter password	**<password>**	verifies password user account is created
9	run script to push changes out to all workstations	**<ypmake>**	These are all of the machines on the internal LAN

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Zp110-00 Deleting UNIX Users

Step #	Purpose	Action	Comment
1	login to NIS master machine	**<telnet *nismaster*>** **-or-** **<rsh *nismaster*>**	make sure all user files have been successfully back up before deleting home directory
2	login as root	<**su**>	must be logged into UNIX user account first, password prompt appears
3	enter user's home directory	**<cd /home/*username*>**	
4	move all data to be saved to another location	**<mv *filename newlocation*>**	repeat process until all necessary data is saved
5	change to one level above home directory	**<cd ..>**	
6	remove directory	**<rm -r *userid*>**	removes user directory & ALL files contained within
7	type y if asked for confirmation	**<y>**	
8	change to /etc directory	**<cd /etc>**	
9	make backup of passwd file	**<cp passwd passwd.backup>**	makes backup
10	edit password file	**<vi /etc/passwd>**	
11	search for user entry	**<ESC>** **</*userid*>**	takes you to user's line in password file
12	user arrow keys to move to that line	**up arrow** - or - **down arrow**	
13	delete that line of password file	**<ESC>** **<dd>**	deletes user's entry in password file
14	save password file & quit	**<ESC>** **<:wq!>**	
15	edit auto.home file	**<vi /etc/auto.home>**	

Step #	Purpose	Action	Comment
16	search for user entry	**<ESC>** **<:/*userid*>**	takes you to user's line in auto.home file
17	user arrow keys to move to that line	**up arrow** - or - **down arrow**	
18	delete that line of auto.home file	**<ESC>** **<dd>**	deletes user's entry in password file
19	save auto.home file & quit	**<ESC>** **<:wq!>**	
20	change directory to mail directory	**<cd /usr/spool/mail>**	preparing to delete mail directory
21	delete user's mail file	**<rm *userid*>**	deletes user's mail file
22	type y if asked for confirmation	**<y>**	
23	search for userid in /etc/group	**<grep *userid* /etc/group>**	if provided no entries in /etc/group - continue to step 29
24	edit /etc/group	**<vi /etc/group>**	
25	search for user entry	**<ESC>** **<:/*userid*>**	takes you to user's entry in group file
26	user arrow keys to move to that entry	**up arrow** - or - **down arrow**	
27	delete that entry of group file	**<ESC>** **<x>**	delete userid & preceeding comma, space
28	save group file & quit	**<ESC>** **<:wq!>**	
29	search for userid in /etc/netgroup	**<grep *userid* /etc/group>**	if provided no entries in /etc/netgroup - continue to step 35

Step #	Purpose	Action	Comment
30	edit /etc/netgroup	**<vi /etc/netgroup>**	
31	search for user entry	**<ESC>** **<:/*userid*>**	takes you to user's entry in netgroup file
32	user arrow keys to move to that entry	**up arrow** - or - **down arrow**	
33	delete that entry of netgroup file	**<ESC>** **<x>**	delete userid, preceeding comma & space
34	save netgroup file & quit	**<ESC>** **<:wq!>**	
35	search for userid in /etc/aliases	**<grep *userid* /etc/aliases>**	if provided no entries in /etc/aliases - continue to step 41
36	edit /etc/aliases	**<vi /etc/aliases>**	
37	search for user entry	**<ESC>** **<:/*userid*>**	takes you to user's entry in aliases file
38	user arrow keys to move to that entry	**up arrow** - or - **down arrow**	
39	delete that entry of aliases file	**<ESC>** **<x>**	delete userid & preceeding comma, space
40	save aliases file & quit	**<ESC>** **<:wq!>**	
41	account & all related links have been removed		

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Zp111-00 Changing UNIX User's Privileges

Step #	Purpose	Action	Comment
1	preliminary information required		user id *group* to be added to
2	login to NIS master machine	**<telnet *nismaster*>** **-or-** **<rsh *nismaster*>**	make sure all user files have been successfully back up before deleting home directory
3	login as root	**<su>**	must be logged into UNIX user account first, password prompt appears
4	edit /etc/group	**<vi /etc/group>**	
5	search for group name	**<ESC>** **<:/*group*>**	takes you to that group in group file
6	user arrow keys to move to end of the user list following that group name	**up arrow** - or - **down arrow**	
7	insert user's id in group list	**<ESC>** **<i>** **<, *userid*>**	add user id to end of the group user list
8	save group file & quit	**<ESC>** **<:wq!>**	**<ESC>** **<:wq!>**
9	push changes out to all workstations	**<ypmake>**	runs script to push changes to all workstations manged by NIS
10	user has been added to group		group addition has been made

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Zp112-00 Creating a VOB using ClearCase

Step #	Purpose	Action	Comment
1	login as vobadm	su vobadm	Password prompt will be given. This login is on any machine that requires a VOB
2	enter vobadm password	<password>	UNIX will authenticate access
3	create a VOB	cleartool mkvob -tag <vobtag> -nc -public <vob-storage-path>	password prompt will be given
4	enter registry password	<password>	ClearCase authenticates the password; creates the VOB

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Zp113-00 Installing and configuring software using ClearCase

Step #	Purpose	Action	Comment
1	login as vobadm	su vobadm	password prompt will be given
2	enter vobadm password	<password>	UNIX will authenticate access
3	create a directory in a VOB	cleartool mkdir -nc <pathname>	ClearCase creates the directory
4	add a new file to a directory in a VOB	cleartool checkout -nc <dirname>	ClearCase checks out the directory
5	""	cleartool mkelem -ci -nc <filename>	ClearCase adds the new file to the directory in the VOB
6	""	cleartool checkin -nc <dirname>	ClearCase checks in the directory

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Zp114-00 Creating Views using ClearCase

Step #	Purpose	Action	Comment
1	login as vobadm	su vobadm	password prompt will be given
2	enter vobadm password	<password>	UNIX will authenticate access
3	create a view	cleartool mkview -tag <view-tag> <view-storage-path>	Cleartool creates the view (that is the files that a group may want to see or update)

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Zp115-00 Checking out Configured Software

Step #	Purpose	Action	Comment
1	checkout a file for modifications	cleartool checkout -nc <filename>	ClearCase checks out the file
2	edit the file as desired	vi, emacs, cp, mv, grep, etc.	all UNIX programs will work with the file

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Z116-00 Checking in Software and Merging the Configured Software

Step #	Purpose	Action	Comment
1	login as vobadm	su vobadm	password prompt will be given
2	enter vobadm password	<password>	UNIX will authenticate access
3	checkin the modified file	cleartool checkin -nc <filename>	ClearCase checks in the file

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Zp117-00 Backing up the VOB

Step #	Purpose	Action	Comment
1	login as vobadm	su vobadm	password prompt will be given
2	enter vobadm password	<password>	UNIX will authenticate access
3	backup a VOB	cleartool lock -nc <vob-storage-dir-path>	ClearCase locks the VOB
4	archive the VOB	tar, gzip, compress, etc.	all UNIX programs will work with the VOB directory structure
5	unlock the vob	cleartool unlock -nc <vob-storage-dir-path>	ClearCase unlocks the VOB

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Zp118-00 Changing a Workstations IP Number (for a Solaris machine)

Step #	Purpose	Action	Comment
1	preliminary information required		new ip number AAA.BBB.CCC.DDD
2	boot machine in single-user-mode	**<STOP-A>** **<boot -s>**	prompt appears to enter root password to enter system maintenance mode
3	enter root password	***<password>***	authenticates self as root
4	change to /etc directory	**<cd /etc>**	
5	edit defaultrouter file	**<vi defaultrouter>**	
6	enter new default router	**<R>** **<AAA.BBB.CCC.1>**	replace router info with new router number
7	save file & quit	**<ESC>** **<:wq!>**	saves file
8	edit hosts file	**<vi hosts>**	
9	move cursor to correct line in host file	**<k>**	k scrolls down to correct line
10	move cursor to IP number	**<l>**	l scrolls to correct place
11	enter new IP number	**<R>** **<AAA.BBB.CCC.DDD>**	changing IP number
12	save file & quit	**<ESC>** **<:wq!>**	saves file
13	reboot workstation	**<reboot>**	machine must now be connected via the new IP number for workstation to reboot properly

Approval Signature: _____ Date: _____

Zp119-00 Freeing Disk Space

Step #	Purpose	Action	Comment
1	login to machine with space problems	**login to machine**	
2	login as root	**<su>**	must be logged into UNIX user account first, password prompt appears
3	enter root password	**<*root_password*>**	authenticates self as superuser
4	change to script directory	**<cd /usr/local/bin/scr>**	enters directory to run script
5	execute script	**<clrtmp1>**	executes script which clears up hard diskl space - removes all files from /tmp which are older than 7 days
6	/tmp file system has been cleaned out		
7	alternative options: encourage users to keep mail left on server to a minimum		user must maintain their own mail directory, the SA cannot clean up these individual directories

Approval Signature: _____ Date: _____

Fp101-00 Adding DCE Users

Step #	Purpose	Action	Comment
1	preliminary information required	**obtain information from requester**	required information: dce cell userid organization group
2	login to dce server	**telnet *dceserver* -or-** **rsh *dceserver***	
3	search passwd file for user's name, UNIX id number	**<ypcat passwd | grep *userid*>**	locate & note user's UNIX ID number- third column in /etc/passwd entry (this will be a serach on the sites network, however this step may be elliminated if the user provides this information with the request)
4	login to DCE as cell administrator	**<dce_login cell_admin>**	
5	enter admin password	***<admin_password>***	authenticates self as DCE administrator
6	execute script that allows you to administer DCE	**<rgy_edit>**	system prompt changes to rgy_edit=>
7	prepare to create principle name	**<do p>**	changes to principal domain (must be in principal domain to edit/view principal)
8	add new principle name	**<add>**	adds a new principal name
9	enter user id	***<userid>***	enter principal name [pname] to be added
10	enter UNIX number	***<unix_ID_number>***	as retrieved from passwd file
11	enter full name	***<First_Name Last_Name>***	
12	enter object creation quota	**<return>**	use default value (unlimited) principal addition is complete - returns to "Add Principal>Enter name" prompt
13	exit from "Add Pricipal=>Enter name" prompt	**<return>**	returns to "rgy_edit=>" prompt

Step #	Purpose	Action	Comment
14	prepare to create account	**<do a>**	changes to account domain (must be in account domain to edit/view account)
15	add new account name	**<a>**	adds a new account name
16	enter account id [pname]	**<*userid*>**	[pname], as entered above
17	enter account group [gname]	**<*group_name*>**	exact syntax required
18	enter account organization [oname]	**<*organization_name*>**	exact syntax required
19	enter password to be assigned to user account	**<*new_password*>**	
20	re-enter user password	**<*new_password*>**	verifies password
21	enter admin password	**<admin_password>**	verifies admin privileges
22	enter misc info	**<*return*>**	use default value ()
23	enter home directory	**</home/*userid*>**	enters home directory path
24	enter default shell path	**</bin/csh>**	enters default shell
25	password valid?	**<return>**	use default value (y)
26	enter expiration date	**<return>**	use default value (none)
27	allow account to be server principal	**<return>**	use default value (y)
28	allow account to be client principal	**<return>**	use default value (y)
29	account valid for login	**<return>**	use default value (y)
30	allow post-dated certificates?	**<return>**	use default value (n)
31	allow forwardable certificates?	**<return>**	use default value (y)
32	permit TGT authentication?	**<return>**	use default value (y)
33	allow renewable certificates?	**<return>**	use default value (y)
34	allow proxiable certificates?	**<return>**	use default value (n)
35	allow duplicate session keys?	**<return>**	use default value (n)

Step #	Purpose	Action	Comment
36	good since date?	**<return>**	use default value (current date & time)
37	create/change auto policy for this account?	**<return>**	use default value (n) returns to "Add Account" prompt
38	exit from "Add Account=>Enter account id [pname]:" prompt	**<return>**	returns to "rgy_edit=>" prompt

Approval Signature: _____ Date: _____

Fp102-00 Deleting DCE Users

Step #	Purpose	Action	Comment
1	preliminary information required	**obtain information from requester**	required information: user id DCE cell
2	login to DCE server	**telnet *dceserver* -or-** **rsh *dceserver***	
3	login to DCE as cell administrator	**<dce_login cell_admin>**	
4	enter admin password	***<admin_password>***	authenticates self as DCE administrator
5	execute script that allows you to administer DCE	**<rgy_edit>**	system prompt changes to rgy_edit=>
6	prepare to create principle name	**<do p>**	changes to pricipal domain (must be in principal domain to edit/view pricipal)
7	delete principle name	**<delete *userid*>**	deletes the principal name, returns to "rgy_edit=>" prompt

Approval Signature: _____ Date: _____

Fp103-00 Changing DCE User's Principal Information

Step #	Purpose	Action	Comment
1	preliminary information required	**obtain information from requester**	required (current) information: userid DCE cell information to be changed (new): userid full name object creation quota note: Unix ID number cannot be changed
2	login to DCE server	**telnet *dceserver*** -or- **rsh *dceserver***	
3	login to DCE as cell administrator	**<dce_login cell_admin>**	
4	enter admin password	***<admin_password>***	authenticates self as DCE administrator
5	execute script that allows you to administer DCE	**<rgy_edit>**	system prompt changes to rgy_edit=>
6	prepare to modify principle information	**<do p>**	changes to pricipal domain (must be in principal domain to edit/view pricipal information)
7	change principal	**<c>**	
8	enter principal name to change	***<userid>***	enter principal to change
9	Enter new userid (default is current userid)	***<new_userid>*** or **<return>** to remain unchanged	enter return to retain default (current value) or enter new userid
10	Enter new full name: (default is current full name)	***<new_full_name>*** or **<return>** to remain unchanged	enter return to retain default (current value) or enter new full name

Step #	Purpose	Action	Comment
11	Enter object creation quota: (default is current object creation quota)	**<*new_object_creation_quota*>** or **<return>** to remain unchanged	enter return to retain default (current value) or enter new object creation quota returns to "Change Principal=> Enter name:" prompt
12	exit from "Change Principal=> Enter name:" prompt	**<return>**	returns to "rgy_edit=>" prompt

Approval Signature: _____ Date: _____

Fp104-00 Changing DCE User's Account Information

Step #	Purpose	Action	Comment
1	preliminary information required	**obtain information from requester**	required (current) information: userid DCE cell information to be changed
2	login to DCE server	**telnet *dceserver*** -or- **rsh *dceserver***	
3	login to DCE as cell administrator	**<dce_login cell_admin>**	
4	enter admin password	**<*admin_password*>**	authenticates self as DCE administrator
5	execute script that allows you to administer DCE	**<rgy_edit>**	system prompt changes to rgy_edit=>
6	prepare to modify account information	**<do a>**	changes to account domain (must be in account domain to edit/view account information)
7	change account	**<c>**	changes account information
8	enter account name to change	**<*userid*>**	enter account to change [userid]
9	Enter object creation quota: (default is current object creation quota)	**<*new_object_creation_quota*>** - or - **<return>** to remain unchanged	enter return to retain default (current value) or enter new object creation quota returns to "Change Principal=> Enter name:" prompt
10	enter new account group [gname] (default is current value)	**<new_*group_name*>** - or - **<return>** to remain unchanged	enter return to retain default (current value) or enter new group name
11	enter new account organization [oname] (default is current value)	**<*new_organization_name*>** - or - **<return>** to remain unchanged	enter return to retain default (current value) or enter new organization name

Step #	Purpose	Action	Comment
12	enter new misc info (default is current value)	**<*new_misc_info*>** - or - **<return>** to remain unchanged	enter return to retain default (current value) or enter new misc info
13	enter new home directory (default is current value)	**<*new_home_directory*>** - or - **<return>** to remain unchanged	enter return to retain default (current value) or enter new home directory
14	enter new shell (default is current value)	**<*new_shell*>** - or - **<return>** to remain unchanged	enter return to retain default (current value) or enter shell
15	password valid? (default is current value)	**<new_password_valid>** - or - **<return>** to remain unchanged	enter return to retain default (current value) or new value
16	enter new expiration date	**<yy/mm/dd>** - or - **<none>**	enter appropriate value
17	allow account to be server principal	**<y>** (yes) - or - **<n>** (no)	enter appropriate value default (not displayed) is current value
18	allow account to be client principal	**<y>** (yes) - or - **<n>** (no)	enter appropriate value - default (not displayed) is current value
19	account valid for login?	**<y>** (yes) - or - **<n>** (no)	enter appropriate value - default (not displayed) is current value
20	allow post-dated certificates?	**<y>** (yes) - or - **<n>** (no)	enter appropriate value - default (not displayed) is current value

Step #	Purpose	Action	Comment
21	allow forwardable certificates?	**<y>** (yes) - or - **<n>** (no)	enter appropriate value - default (not displayed) is current value
22	permit TGT authentication?	**<y>** (yes) - or - **<n>** (no)	enter appropriate value - default (not displayed) is current value
23	allow renewable certificates?	**<y>** (yes) - or - **<n>** (no)	enter appropriate value - default (not displayed) is current value
24	allow proxiable certificates?	**<y>** (yes) - or - **<n>** (no)	enter appropriate value - default (not displayed) is current value
25	allow duplicate session keys?	**<y>** (yes) - or - **<n>** (no)	enter appropriate value - default (not displayed) is current value
26	good since date?	***<yy/mm/dd>*** - or - **<none>**	enter appropriate value - default (not displayed) is current value
27	create/change auto policy for this account?	***<new_value>*** - or - **<return>** to remain unchanged	enter return to retain default (current value) or enter current value returns to "Change Pricipal=> Enter name:" prompt
28	exit from "Change Principal=> Enter name:" prompt	**<return>**	returns to "rgy_edit=>" prompt

Approval Signature: _____ Date: _____

Fp105-00 Configuring DCE Client with a new IP Number

Step #	Purpose	Action	Comment
1	preliminary information required		cell name
2	run dce setup script	**</opt/dce1.0.3a/etc/dcesetup configure client>**	runs dce client configuration
3	enter cell name	**<*cell_name*>**	
4	enter cell administrator name	**<cell_admin>**	
5	enter administrator's password	**<*cell_admin_password*>**	authenticates self as administrator
6	retype cell administrator's password	**<cell_admin_password**	verifies password
7	enter security server hostname	**<*security_server_hostname*>**	
8	enter CDS server hostname	**<*security_server_hostname*>**	
9	do you want to configure machine as a DFS client	**<n>**	
10	do you want to configure machine as a DTS clerk	**<y>**	goes through DCE configuration sequence
11	configuration is complete		

Approval Signature: _____ Date: _____

Fp106-00(a) Changing DCE Privileges on Directories (from command line)

Step #	Purpose	Action	Comment
1	to create the directory	**<cdscp create directory *directory path and name*>**	
2	to give directory privileges	**<acl_edit *directory* -ic -m user:*userid*:rwtd>**	

Approval Signature: _____ Date: _____

Fp106-00(b) Changing DCE Privileges on Directories (from menu)

Step #	Purpose	Action	Comment
1	execute cdsbrowser	**< >**	
2		select item **Actions**	
3		select item **Create Entry**	
4		select item **Create Directory**	
5	enter name of directory	***<directory path and name>***	
6	select the new directory	**highlight directory**	
7	go to security window	select **Security** item	
8	select the access control list editor	select **CDS Acl Edit**	
9		select **Initial Container**	
10	select the type of ACL that you want to set	Select ***type***	user, group, any_other, etc.
11	select the key for the ACL		if you select group as the type of ACL, you must now link which group will control this directory

Approval Signature: _____ Date: _____

Fp107-00 Configuration of the DCE client

Step #	Purpose	Action	Comment
1	get into DCE main menu	**<dcesetup config client>** for Sun **<mkdce -a cell_admin -s *edf-b b .gsfc.nasa.gov* -c *edf-bb.gsfc.nasa.gov* cds_cl>** for IBM **<dce_config>** for HP	
2	select **Configure**	select **1**	
3	select **DCE Client**	select **3**	S:******Configuring client..
4	enter name of cell	**enter name of your cell (without /.../):<*name of cell*>**	S:******Starting rpcd... Warning: If "rcpd" was recently running and was using the TCP protocol sequence to listen for calls to the server, then a TCP shutdown period of up to 4 minutes is required before restarting "rcpd" in order to avoid "cannot bind socket" errors.
5	continue or exit at this point	**Press<RETURN>to continue, CTRL-C to exit:<cr>**	(rpcd) listening...
6	enter name of security Server	**What is name of the Security Server for this cell? <*security server name*>**	S:******Time on *client machine namec* is within specified tolerance (120 sec) of time on *security server name.* WARNING: Ensure the /opt/dcelocal/etc/security/pe_site file matches that on server...
7	continue or exit at this point	**Press<RETURN>to continue, CTRL-C to exit:<cr>**	S:******Starting sec_clientd... S:******Waiting for node self-identity to be established... S:******This node is now a security client. S:******Starting cdsadv...

Step #	Purpose	Action	Comment
8	enter CSD Server name	**What is the name of a CDS server in this cell (if there is more than one, enter the name of the server to be cached if necessary)? <*CDS Server name*>**	
9	create LAN profile	**Create LAN profile so clients and servers can be divided into profile groups for higher performance in a multi-LAN cell? <n>**	S:******name of server with client cdsadv daemon has not received any responses to its broadcast for CDS servers. Executing a "cdsscp define cached server" command... S:******This node is now a CDS client.
10	type of server	Should this machine be configured as a DTS Clerk, DTS Local Server, or DTS Global Server?(Default is DTS Clerk) (clerk, local, global, none) <local>	S:******Waiting for node self-identity to be established... S:******Starting dtsd... S:******Starting dtstimed... S:******This node is now a DTS local server.
11	exit from DCE configuration menu	<99>	S:******Exiting from dce_config

Approval Signature: _____ Date: _____

Fp108-00 UnConfiguration of the DCE client

Step #	Purpose	Action	Comment
1	get into DCE main menu	**<dcesetup config client>** for Sun **<mkdce -a cell_admin -s *edf-bb.gsfc.nasa.gov* -c *edf-bb.gsfc.nasa.gov* cds_cl>** for IBM **<dce_config>** for HP	
2	select unconfigure	**<4>**	S:******Attempting to unconfigure a node from the cell name space...
3	enter host name to be unconfigured	**Enter hostname of node to be unconfigured:<*name*>**	
4	verify if this selection is correct	**Unconfiguring a node will remove the node's ability to operate in the cell. A reconfiguration of the node will be required. Do you wish to continue (y/n)? (n) <y>**	
5	enter cell administrators principal name	**Enter Cell Administrator's principal name:<cell_admin>**	
6	password	**Enter password:<*password*>**	S:******dce.unconfig: Deleting gda registry entry if it exists. S:******dce.unconfig: Deleting client registry entries. S:****** Successfully unconfigured host node ecs from cell. WARNING: A dce_config REMOVE will need to be performed from node *host name* before reconfiguring it.
7	continue or exit at this point	**Press<RETURN>to continue, CTRL-C to exit:<cr>**	

Step #	Purpose	Action	Comment
8	select option in menu to stop DCE daemons and remove data files created by DCE daemons	**<5>**	
9	verify if this is correct	**REMOVE will remove the node's ability to operate in the cell. A reconfiguration of the node will be required. If this is not a server node, then this node should be unconfigured before a REMOVE is done. Do you wish to continue (y/n)? (n) <y>**	S:******Attempting to stop all running daemons... S:******Successfully stopped all running DCE daemons... S:******Attempting to remove all remnants of previous DCE configurations... S:******Successfully removed all remnants of previous DCE configurations for all components.
10	exit from DCE configuration menu	<99>	S:******Exiting from dce_config

Approval Signature: _____ Date: _____

Fp109-00 Remote Login to a Workstation

Step #	Purpose	Action	Comment
1	preliminary information required		full name of machine to log into must have login account on machine
2	telnet to machine	**<telnet *machinename*>** *- or -* **<telnet *IPnumber*>** *- or -* **<rsh *machinename*>**	connects to desired machine
3	enter userid	***<userid>***	
4	enter password	***<password>***	authenticates self as user
5	motd should scroll by, shell prompt appears		
6	set display back to local machine	**<setenv DISPLAY *IPNumber*:0.0>**	sets display back to local machine, must enter IP number of local machine

Approval Signature: _____ Date: _____

5. Operations Instructions

Operations instructions include the off-line procedures, system configurations, and policy issues that are needed for the every day operation of the system.

Fi001-00 Report Generation in the EDF (SMC Reports)

Purpose and Scope:

This instruction details the type of reports and frequency in which the report will be generated at the EDF. The EDF will assume the functionality of the SMC in Ir1, since the EDF will house Hp OpenView which will be used to monitor the system.

Summary:

This instruction will detail the types of reports that are going to be generated, the frequency in which they will be generated, and who will receive these reports once they are generated.

Initiating Organization:

M&O

Approval Authority:

ESDIS

Affected Personnel:

EDF M&O personnel

Instruction:

- HP OpenView will generate the following reports on the last Wednesday of the month:
  - average number of jobs for each host
  - CPU usage for each host
  - disk usage for each host
  - free memory for each host
  - system up time for each host
  - network statistics (packet errors, traffic volume, and link utilization)
- The following reports would be generated manually by use of Excel spreadsheets:
  - total hardware downtime broken down by site, hardware, activity, and impact (generated monthly)

- mean time to repair for each failed component in average number of hours to bring the component back on-line (generated by request of ECS or ESDIS management)
- Summary of open software non-conformance reports (NCRs) (generated weekly)
- system utilization by activity (generated by request of ECS or ESDIS management)
- planned vs. actual system utilization per site (generated by request of ECS or ESDIS management)

- All regular reports will be delivered to the ESDIS Manager in charge of the SMC by the last Friday of the month

Approval Signature: _____ Date: _____

Zi001-00 DCE User Registration

Purpose and Scope:

The DCE user registration instruction outlines the steps that must occur and the approval process necessary for a user of the system to become a DCE user of the system as well. This instruction is intended for DAAC operations users, ECS operations users, Science users, and Instrument team users. The steps of this instruction will be completed before the M&O staff create any new DCE user.

Summary:

This instruction contains a step-by-step approval process needed before a user can become a DCE user. The instruction will contain a sample form with instructions on how to fill it out, and instruction on how to get approval to become a DCE user.

Initiating Organization:

M&O

Approval Authority:

TBD

Affected Personnel:

EDF M&O personnel

Instruction:

- User (ITs, Ops Users, and/or DAAC users) has need for DCE user account.
- User fills out form (see attachment) and gets approval from DAAC Operations Supervisor.
- Approved form is then given to the DAAC liaison, who forwards the needed information to the DCE Administrator at the EDF. The needed information includes: user name, user's UNIX Id, user's group name, user's organization, and user's phone number.
- The DCE administrator uses procedure Fp101-00 or the procedure that replaces it to install the new user on the system.
- The DCE administrator then sends email notifying user, DAAC liaison, and DAAC Management that the new user was installed.
- The DCE administrator phones the new user to inform about temporary password.

- All passwords will be set-up so that the user must change it upon initial logon.
- Changes in user profile (add or delete group affiliations) will are included in this operations instruction and will only occur if the above process is followed.

Approval Signature: _____ Date: _____

DCE User Registration Form

User Name: _____

Date of Request: _____

UNIX ID: _____

Home Directory: _____

Group: _____

Organization: _____

Site: _____

Approval: _____ **Date:** _____

Zi002-00 Installing and Configuring ECS Custom Software

Purpose and Scope:

The Operating Instruction for installing and configuring ECS custom software describes the procedures and policies that the M&O staff will follow when installing maintenance releases of the ECS custom software. The initial installation and configuration will be done by the Ir1 developers and the integration and test team. This instruction does not detail any of the CCB process but assumes that the software change has been approved by the CCB before it is delivered for testing.

Summary:

This instruction details how the M&O staff will manage new releases of the Ir1 custom software. The instruction describes how M&O is notified of a new delivery, how the new software is delivered to them, who gets notified once the software is configured, how they get notified, and how and when the software becomes operational, (ready for use by the Instrument Teams and DAACs).

Initiating Organization:

M&O

Approval Authority:

M&O

Affected Personnel:

M&O personnel, ITs, and DAACs

Instruction:

- M&O staff at the site will be informed by the site liaison or CCB when a maintenance release is ready to be installed at the site.
- The M&O staff will receive the new software by using ftp on a TBD server.
- The sustaining engineering team will include as part of the delivery package a readme file that contains an inventory list of all files contained in the delivery and any special instructions.
- The new delivery will be placed in a temporary VOB. The temporary VOB should have been set-up and configured prior to the initial Ir1 integration testing.

- All executables will be built at the EDF by the M&O personnel responsible for CM. After executables have been built and quality assured (by reviewing listings and dumps), the I&T team leader will be informed via email that the executables are ready to test.
- These executables will then go through a series of new and regression test to verify that the software fixes the intended problem, or adds correct functionality. Also, the software will be tested to verify that it does not corrupt any of the existing functionality.
- Once testing has been completed, the testers will present the test results to the Ir1 CCB. They will then approve the system for use. The Release Manager then notifies each DAAC liaison via email that the software can be promoted.
- DAAC Management will then approve the software update and the installation of the software.
- The M&O staff then promotes the software to the production VOB.
- The M&O staff announce via bulletin board and email to DAAC management, DAAC liaison, and the DAAC lead System Engineer that the software has been promoted (placed in an operational VOB and in operational configuration) and that it is ready for use.

Approval Signature: _____ Date: _____

Zi003-00 Installing and Configuring Science Software

Purpose and Scope:

The Operating Instruction for installing and configuring science software describes the procedures and policies that the M&O staff will follow when they install science software at each DAAC. This instruction is from an M&O view point. The M&O staff will be responsible for the execution of the ClearCase software using procedures detailed in section 4. The Science Office will assist in this process because of their knowledge of the science software. Each IT and DAAC may handle the delivery of software differently. However, once the software has been delivered to the DAAC, the instruction will be the same for all of the sites.

Summary:

This instruction details how the M&O staff will receive new releases of the science software and update previous versions with approved modifications.

Initiating Organization:

M&O

Approval Authority:

TBD

Affected Personnel:

M&O and Science Office personnel, ITs, and DAACs

Instruction:

- The ECS Science liaisons are notified via email from DAAC personnel that the SCF is going to deliver new software and when they are delivering it.
- The SCF delivers software via the approved method (DAACs and SCFs have memorandums of understandings that specify how software deliveries will take place).
- The Science liaisons then notifies the science office personnel that the software has been delivered.
- After the Science Office personnel has received and approved the delivery, the M&O staff will use the ClearCase tool to configure the software to the test VOB designated for that software. Test VOB will be configured on the system by ECS developers prior to SSI&T. If

this is not the case or a new Version Object Base (VOB) is needed the M&O staff will use procedure Zp112-00 to create and configure a new VOB.

- The DAAC/IT will notify the Science office when this software gets promoted, (after the test software has been tested and verified) to the production VOB or if there is a modification that needs to be merged into the previous version.
- The M&O staff will then promote the software to the production VOB or merge the modified software to the temporary VOB creating a new version after notification from the Science Office.
- The M&O staff are the primary people that will be responsible for running ClearCase and configuring software on the ECS system for the SSI&T phase of the system. However, the Science office personnel at the site will provide assistance when needed.
- After the initial configuration of the VOB and views, the Instrument Teams will be allowed to check out software for modification, however it is the responsibility of the M&O person to merge the changed software into the VOB thus creating a new version of the software.
- Modified software will be merged only after approval from DAAC management.

Approval Signature: _____ Date: _____

Zi004-00 Consumables Procedures

Purpose and Scope:

The purpose of this instruction is to identify the office and data media consumables used by ECS personnel supporting Ir1 operations at each DAAC location, identify the supply source for those consumables, and to identify the process for initial and replenishment issue of these consumables during the Ir1 time-frame.

Summary:

This instruction prescribes the consumables management procedures during Ir1 and is based on the *Release A Integrated Support Plan* (616-CD-001-002), and the *Ir1 Installation Plan* (800-TP-001-001). The direction and guidance contained in these plans have been modified in this document to reflect Ir1 capabilities and requirements.

Abbreviations Used

COTS	Commercial Off The Shelf
DAAC	Distributed Active Archive Center
ECS	EOSDIS Core System
EDC	EROS Data Center, Sioux Falls, SD
EDF	ECS Development Facility, Upper Marlboro, MD
EOSDIS	Earth Observing System Data and Information System
GSFC	Goddard Space Flight Center, Greenbelt, MD
HW	Hardware
LARC	Langley Research Center, Hampton, VA
ILS	Integrated Logistics Support
ILSO	ILS Office
Ir1	Interim Release 1
LMC	Local Maintenance Coordinator
MSFC	Marshall Space Flight Center, Huntsville, MD

Definitions:

Consumables: Supplies used in day-to-day administrative tasks. There are three categories of consumables.

1. Desk/office supplies

   Supplies normally found in or on an administrative desk and it's office environment. Examples are: paper, pencils, staples, envelopes, hole punchers, folders, copier and printer toner, etc.

2. Packing and packaging materials

   Supplies used in sending data media or printed reports to ECS science users. Examples are: disk mailers, labels, boxes, and static proof packing for data media.

3. Computer support products

   Supplies used in retrieving information from computer storage disks for transfer to another computer and/or backup. Also includes operator cleaning media for read/write heads. Examples are: 3.5" diskettes, printer paper, toner, and 4mm and 8mm tape cleaning cartridges.

Data Media Consumables: Supplies stocked at the site that are required for routine ECS equipment operations, are consumed in their normal use, and/or are expendable because they are low cost and replaced rather than repaired when unserviceable. Included are data media used for storage and archiving of science data, backup of ECS systems, and/or distribution of science data to users. Examples are 4mm and 8mm tapes, 3490E tapes, 6250 data cartridges, and CD-ROM platters.

Initiating Organization:

M&O

Approval Authority:

To Be Determined

Affected Personnel:

Site operations, logistics, maintenance, and property administration personnel.

Instruction:

1. The installation team will deliver an initial 90-day stock of data media for Ir1 when the equipment is delivered.
2. Contractor provided consumables (data media) will be centrally procured and distributed by the ILS Office (ILSO). Thus, the site property administrator will request, from the ILSO, replenishment of data media when the data media stocks decline. The request to the ILSO should provide at least a 45 day period from request to replenishment. Replenishment requests may be via e-mail to: jhurst@eos.hitc.com, or by mail, or hand delivery to Joe Hurst, 1616 McCormick Drive, Upper Marlboro, Maryland 20774-5372.

The request may be in letter format, use a local request form, or use a standard ECS request form when it is developed and distributed. The request should identify, at a minimum, the following information:

a) Requester's name and telephone number

b) Date needed (urgency of need)

c) Name of the item

d) Specifications requirements (size, length, capacity, media, etc.)

e) Quantity required

f) Ship to address

4. Office consumables are Government furnished and are to be supplied by each host DAAC site. Local policy and procedures will be followed on the replenishment of these consumables. If local policy does not yet address office consumables in support of the ECS DAAC, the senior ECS person at the DAAC should request office consumables from the host, providing initial and monthly quantity estimates in addition to sufficient information to positively identify the item desired (product description -name-, model, and part number). Quantities for initial data media product stockage are based on each site responding to request from science users for data. This data request is assumed to be 10 percent of the data received and processed monthly by each site. Replenishment quantities requested for these consumables are to reflect the actual data request rate experienced.

Initial Data Media Consumables:

The data media to be initially provided to each Ir1 DAAC is 8mm tape cartridges. Their monthly usage during Ir1 is not expected to exceed 1 cartridge a day per 8mm tape machine. The quantities in the listing below reflect a 90 supply and a 10% reserve.

Ir1 Data Media Units per DAAC

		Initial Quantities				
Specification		EDC	EDF	GSFC	LARC	MSFC
8mm 160M XL Tape Cartridge (Media)	1. 8mm Digital audio tape 2. Data grade BX5 3. 90M to 120M length 4. Cartridge	100	100	200	200	200

Approval Signature: _____ Date: _____

Zi005-00 UNIX User Registration

Purpose and Scope:

The purpose of this instruction is to detail the M&O role in the registration of new users on any of the ECS UNIX platforms. The instruction also assigns responsibility to the appropriate people that need to make decisions concerning the system operations.

Summary:

In order for anyone to have a user account on any of the computers that make up ECS, the user must provide to the DAAC Management a detailed justification for why they should have an account on the system. Once the application is approved, the M&O person at the site where the user is requesting an account will follow procedure Zp109-00 to add the new user. The same approval process will be used for deleting a user, changing privileges, and changing affiliations. Unless it is indicated on the form the user will be added to all UNIX systems at a particular site.

Initiating Organization:

M&O

Approval Authority:

TBD

Affected Personnel:

M&O and ECS users

Instruction:

- User's must submit request for account form (see attachment) to the DAAC management. Some information on the form may be completed by the M&O staff.
- The DAAC management will then approve or disapprove the application. Upon approval the DAAC management will give the form to the DAAC ECS System Engineering liaison.
- The ECS System Engineering liaison then gives the form(s) to the M&O person so that they may take the appropriate action (add the user, delete the user, change privileges or change affiliations). Unless indicated on the form the action will take place for all systems at a particular site. A separate form must be submitted for each site.
- The M&O personnel then follows the appropriate procedure for the action.

- For adding new users the M&O person will phone the new password to the user with the temporary password. The password will be set to expire as soon as the user logs on, forcing them to change their password. In the event a user forgets their password a new password will be issued in the same format.
- The M&O person then sends email message to the people listed in the Ops procedures when the action has been completed.
- This action, as all changes to the ECS system will be logged in the Operator's log book.

Approval Signature: _____ Date: _____

User Registration Request Form

User Name: _____

Date of Request: _____

UNIX ID: _____

Home Directory: _____

Group: _____

Organization: _____

Site: _____

Approval: _____ **Date:** _____

Zi006-00 Trouble Shooting and Problem Reporting

Purpose and Scope:

The purpose of this operations instruction is to specify the procedures and policy used by the M&O staff for trouble shooting problems. The custom software will be maintained at the EDF by the development organization. Any trouble shooting procedures will be provided by them at the time of the problem by email or phone. However, this instruction will detail the problem reporting mechanism. This instruction will not give procedures for running any diagnostic tools or detail how to analyze results.

Summary:

This instruction will detail actions that need to be performed in order to trouble shoot and/or report Ir1 problems.

Initiating Organization:

M&O

Approval Authority:

M&O

Affected Personnel:

M&O, Ir1 Sustaining Engineer

Instruction:

- COTS Hardware and Software problems will be reported to the ECS help desk as detailed in instructions Zi016-00 and Zi017-00
- In case of problems with the Ir1 system contact the ECS help desk at 1-800-ECS-DATA (1-800-327-3282). The email address is "help@eos.hitc.com".
- The help desk will contact the EDF M&O for an initial evaluation of the problem. If the EDF M&O can not solve the problem they will contact the ECS sustaining engineer.

  Nitin Vazarkar phone: 301-925-0406

  email: Ir1bugs@eos.hitc.com

- If it has been determined that the problem requires a non-conformance report (NCR) in order for it to be fixed or tracked, the person that is experiencing the problem will generate an open NCR using the WWW interface.
- The Web page is titled "ECS Non-Conformance Report" and is accessed using the following URL:

  http://newsroom/sit/ddts/ddts.html
- Instructions for using this web interface are described in the ***Interim Release One (Ir1) Maintenance and Operations Procedures***.
- The sustaining engineer shall issue a report to the sites on all open NCRs. A follow up teleconference may be organized to discuss any important NCRs. This teleconference can be requested by the sustaining engineer or the DAACs.
- NCRs will not be closed until the problem has been solved to the satisfaction of the person who experienced the problem.
- The DAACs and the Instrument teams are responsible for tracking any problems with the science software.

Approval Signature: _____ Date: _____

Zi007-00 Normal Shut-down

Purpose and Scope:

The purpose of this instruction is to detail how and when the M&O staff may execute a normal shut-down of the Ir1 system.

Summary:

In order to shut-down the Ir1 system cleanly without interfering with users or destroying data, the M&O staff must follow procedure Zp103-00 to shut-down the system. This procedure can only be performed after scheduling the event with Resource Management and having the DAAC Management approval.

Initiating Organization:

M&O

Approval Authority:

DAAC Manager

Affected Personnel:

M&O and ECS users

Instruction:

- Who ever needs to shut-down the system must first coordinate when ever possible the time of the shut-down with the Resource Manager (M&O person designated as the Resource Manager).
- Once a time of least impact has been determined, the DAAC Management is notified and must approve of the shut-down/resource schedule change before it can take place.
- The M&O staff then follows procedure Zp103-00.
- All activities are logged in the operator's log.

Approval Signature: _____ Date: _____

Zi008-00 Emergency Shut-down

Purpose and Scope:

The purpose of this instruction is to detail how and when the M&O staff may execute an emergency shut-down of the Ir1 system.

Summary:

In order to perform an emergency shut-down of the Ir1 system while lessening the impact on users and trying not to destroy data, the M&O staff must follow procedure Zp104-00 to shut-down the system. This shut-down may not necessarily be a complete system shut-down. It may be decided that only the subsystems experiencing problems will be shut-down and then brought back up after the problem has been resolved. The senior M&O person at the site is responsible for making the decision to perform an emergency shut-down. Whenever possible the DAAC Management is consulted before the system/subsystem(s) is/are brought down.

Initiating Organization:

M&O

Approval Authority:

DAAC Manager and M&O Manager

Affected Personnel:

M&O and ECS users

Instruction:

- The senior M&O person must determine what is the problem with the system.
  - If the entire system is locked up then a complete system shut-down is required and the emergency shut-down and start-up procedures should be executed immediately. The DAAC Manager is notified after the system has been brought back up.
  - If major subsystems are locked up the entire system should also be brought down and the emergency shut-down and start-up procedures should be executed immediately.
  - If one or only a few of the subsystems are experiencing problems, and only some of the users are impacted the following steps should be followed:

  - Try to resolve the problem(s) with the subsystem(s), (the developers at the EDF may need to be consulted).
  - If it has been decided that a shut-down is necessary, then try to shut-down the problem subsystems first.
  - Try not to impact users that are still using the system.
  - Notify the DAAC Manager if the problem is not immediate.
- The problem should be documented and a problem report generated.
- The M&O staff should follow procedure Z104-00.
- All activities are logged in the operator's log.

Approval Signature: _____ Date: _____

Zi009-00 System Restore

Purpose and Scope:

The purpose of the system restore instruction is to assign responsibility and to insure that the proper approvals are obtained when a complete system is restored from a backup tape.

Summary:

The only time a complete system restore should have to be performed is in the event of a system crash with the loss of data, and the only way to get the system back up and running in a timely fashion is to restore the system from a previous backup. The result of this action will be that any updates to the system, (e.g. files), from the time of the last backup to the restore will be lost. The senior M&O person will get approval for the restore from the DAAC manager or their designee. They will then execute procedure Zp108-00.

Initiating Organization:

M&O

Approval Authority:

DAAC Manager

Affected Personnel:

M&O and ECS users

Instruction:

- The complete recovery of the system from a backup is the result of trouble shooting exercise. Instruction Zp108-00 should be used in concert with this instruction.
- The developers at the EDF must be contacted in order to verify that a complete restore of the system is the only way to resolve problem.
- After it has been decided that it is necessary to perform a complete restore of the system, the DAAC Manager or their designee are informed of the action and the results of such an action.
- Procedure Z108-00 is executed to perform the restore.
- All problems are documented and logged in the operator's log book.

Approval Signature: _____ Date: _____

Zi010-00 Resource Planning

Purpose and Scope:

This OI documents the process for management of the ECS Ir1 hardware, software and on-site personnel resources in accordance with the directives and responsibilities delineated in the ECS Ops Policy #1. Ir1 sites are the ECS Development Facility (SMC) and the EDC, GSFC, LaRC DAACs.

Summary:

This OI describes the processes required to:

1. Request use of the Ir1 resources to support ECS activities, e.g., maintenance, IV&V testing, interface testing, science software integration and test, training.
2. Develop, maintain, review and approve Ir1 resource utilization schedules.
3. Review and approve use of Ir1 resources for non-EC tasks.

Initiating Organization:

ECS M&O

Approval Authority:

ESDIS M&O Manager

Affected Personnel:

Ir1 SMC (EDF), DAACs, Ir1 Resource Users (Ir1 Developers, IV&V Contractor, ESDIS I&T, Instrument Teams, ECS Developers, ECS M&O, DAAC Staffs)

Associated Ops Policies/OIs/Procedures

ECS Ops Policy #1, Ir1 Resource Management (Precedent)

Instruction:

The following subsections provide instructions for:

1. Requesting Use of Ir1 Resources for ECS Activities
2. Scheduling Ir1 Resources
3. Approval for Use of Ir1 Resources for Non-ECS Tasks

1. Requesting Use of Ir1 Resources

Initial/preliminary requests for use of ECS Ir1 hardware, software and/or personnel shall be submitted as soon as possible (no later than one month prior to requested use date) to the appropriate site's DAAC Engineering Liaison or the EDF Ops Manager using a completed ECS Resource Request Form. A copy of the form and completion instructions are attached. Requests for multiple-site/system-wide resources shall be submitted to the EDF Ops Manager and all applicable site Liaisons. Requests must be accompanied by activity (test) plans and procedures. If the initial Request is not precise, a more precise Request must be submitted at least one week before requested use date.

An acknowledgment of receipt will be returned to the requester within 24 hours. The Liaison/EDF Ops Manager will coordinate an initial review by the DAAC Manager/staff or DAAC Science Ops Coordinator (SOM)/EDF staff. Initial questions/comments regarding the Request and/or accompanying plans/procedures will be sent to the requester within 72 hours. The Resource Request will be entered into the site resource scheduling process described in the following section #2. After approval of the request and integration into the site resource schedule, a copy of the schedule will be sent to the requester.

2. Scheduling Ir1 Resources

The DAAC Liaison/EDF Ops Manager, upon receipt of a Resource Request, will assign an appropriate priority to the request in accordance with the ESDIS/DAAC Manager/SOM priority list. The Liaison will then attempt to integrate the request into the site resource schedule. The Liaison will distribute the Request, any accompanying plans/procedures and the proposed integrated schedule with applicable comments to the DAAC Manager/SOM, DAAC/EDF staff and site M&O staff for review/comment.

The Liaison will compile all review comments and present a summary at the next site Resource Scheduling Meeting. Following is the charter for the Meeting (Note: Variances may occur at each site as specified by the Site Manager.):

Purpose:

The purpose of this meeting is to review/discuss and obtain the Site Manager's approval of the proposed Monthly/Weekly/Daily Site Resource Schedule developed and presented by the Site Liaison/EDF Ops Manager.

- Chair: DAAC Manager/Designee (DAAC)
SOM/Designee (EDF)
- Facilitator: ECS System Engineering Liaison (DAAC)
EDF Manager/Designee (EDF)
- Attendees: Representatives from requesting organizations
EDF representative (by telecon if appropriate)
DAAC staff
Other interested parties

• Input:	Requesting organizations' resource requirements
• Output:	Integrated daily schedule of Ir1 resource usage for up to ~12 weeks into the future.
• Plan Format:	Daily and hourly utilization of Ir1 resources
• Plan Published:	Weekly (Red lines as needed)
• Meeting Frequency:	Weekly
• Decision Criteria:	Resources allocated consistent with DAAC Manager's priorities
• Conflict Resolution:	DAAC Systems Operations Manager Project Scientist

The approved site Resource Schedules, developed and maintained by the Liaison/EDF Ops Manager, are then distributed to site staff and requesters.

3. Approval for Use of Ir1 Resources for Non-ECS Tasks

Requests for use of Ir1 hardware, software and/or personnel will be submitted to the DAAC Manager/SOM. Upon acceptance by the Site Manager, the request will be coordinated with the DAAC Liaison/EDF Manager for ECS impact assessment. After consideration of ECS impacts, requests approved by the Site Manager will be submitted to the ESDIS M&O Manager for review, coordination with the ECS M&O Manager and approval. Requests will include:

1. Description of task including estimated schedule, duration, level of effort
2. Objective and completion criteria
3. ECS impacts
4. Funding source/charge accounts

Approval Signature: _____ Date: _____

ECS Resource Request Form

Requesters Name			Date Received ECS use only	P: S:	Request ID ECS use only	P: S:	
Org.		Telephone #:	( )	eMail:			
Activity Description							
Site		EDF		EDC	GSFC		LaRC
* See attached exclusion times/ dates		Date/Start Time/End Time (Eastern Time) / /		Date/Start Time/End Time (Central Time) / /	Date/Start Time/End Time (Eastern Time) / /		Date/Start Time/End Time (Eastern Time) / /
Indicate which resources are needed for this activity (**Ã** or # of operators)		Mgt S/S		Mgt S/S	Mgt S/S		Mgt S/S
				Science Processor	Science Processor		Science Processor
				Sci SW I&T	Sci SW I&T		Sci SW I&T
				Ingest Server	Ingest Server		Ingest Server
		ECS Operator		ECS Operator	ECS Operator		ECS Operator
Comments							

All activities must be coordinated with the DAAC Manager/designee (for DAAC activities) and/or Systems Operations Manager/designee (for EDF activities) prior to form submittal.

An activity form shall be submitted for each schedulable activity that uses ECS resources - computers, peripherals, workstations, and ECS M&O personnel. A single form may request resources at more than one site.

The activities will be integrated by ECS personnel into a single, conflict-free schedule under the guidance, direction, and approval of the DAAC Manager (each DAAC) and/or ECS M&O Office Manager (SMC at EDF only).

Requests should be submitted electronically, hard copy, or fax to the following individuals:

EDF	Les Wheeler	lwheeler@eos.hitc.com
	(301) 925-0387	Fax: (301) 925-0438
EDC	John Daucsavage	jdaucs@ecs-hp1.cr.usgs.gov
	(605) 594-6816	Fax: (605) 594-6940
GSFC	Carolyn Whitaker	cwhitake@ecsgsfc1.gsfc.nasa.gov
	(301) 286-3997	Fax: (301) 286-0268
LaRC	Haldun Direskeneli	haldun@nephos.larc.nasa.gov
	(804) 864-8890	Fax: (804)864-8807

ECS Resource Request Form Instructions

1. Requester's Name - Requester enter point of contact for this activity.

2. Date Received- ECS point of contact at the (Primary) (where originally submitted) and (Secondary) (other affected sites) locations will enter the date that the request is received at that location.

3. Request ID - ECS point of contact where the request is submitted - the Primary site) will enter a unique identifier next to the (Primary). If resources at other locations is requested, each other site will enter its own identifier next to the (Secondary). Identifiers are of the form.

   EDF-nnnn

   EDC- nnnn

   GSFC-nnnn

   LaRC-nnnn

   where nnnn is a numeric value that uniquely identifies that sites resource requests.

4. Org. - Requester enter organization requesting the resources. Examples:

   ECS (maintenance and developer activities, Science Office, M&O training, etc.)

   IV&V (component acceptance testing)

   DAAC (SSI&T, DAAC specific testing)

   ESDIS (I/F testing)

5. Telephone # - Requester enter telephone number including area code.

6. eMail - Requester enter email address.

7. Activity Description - Requester enter a text description of the activity. An activity must be separately schedulable to a specific date(s) and time(s).

8. Date/Start Time/End Time - Requester indicate desired dates and times for the activity. More than one instance of the activity may be requested on a single form by specifying individual dates and times. Routine, periodic activities can be scheduled by indicating start and end dates with a notation of daily, weekly, monthly, quarterly, etc. Use the Comment field to supply additional details and/or related information.

   All requests should be shown using local time at the site(s) at which resources are being requested. The requester must properly factor in time zone differences.

9. Resources - Requester indicate the resources that are required to perform the activity. Check all that apply. If the activity (or its configuration) precludes the use of other subsystems, check those subsystems too. If ECS M&O personnel are required, indicate the number of personnel required.

10. Comments - Requester provided additional detail, instructions, internal and external system interfaces and dependencies, DCE cell requirements, etc.

* Standard Ir1 operating times and exclusion dates.

Routine period of Ir1 resource utilization is 7:30 am through 5:00 p.m., Monday through Friday, except for the following holidays:

a. New Years Day	01-Jan-96
b. Martin Luther King Day	15-Jan-96
c. Presidents Day	19-Feb-96
d. Memorial Day	27-May-96
e. Independence Day	04-Jul-96
f. Labor Day	02-Sep-96
g. Columbus Day	14-Oct-96
h. Veteran's Day	11-Nov-96
i. Thanksgiving Day	28-Nov-96
j. Day after Thanksgiving	29-Nov-96
k. Christmas Day	25-Dec-96

Activities not requiring ECS staffing may be performed on off hours or on one or more of the above dates.

Activities requiring ECS staffing during off hours or on one or more of the above dates requires prior approval by the DAAC Manager and the ECS M&O Office Manager.

Zi011-00 Science Software Integration and Test Support

Purpose and Scope:

The purpose of this instruction is to document the role of the M&O staff in support of the Science Software Integration and Test (SSI&T) activities.

Summary:

The M&O staff at the sites are primarily responsible the system administration activities needed to keep the Ir1 system configured and up and running for the ITs to perform their tests. The DAAC Science and Engineering liaisons are primarily responsible for coordination of all testing activities with approval from DAAC management. The M&O staff will assist in trouble shooting and take a lead role in problem reporting.

Initiating Organization:

M&O

Approval Authority:

TBD

Affected Personnel:

M&O, Science Office personnel and the SCFs

Instruction:

- M&O will support the SSI&T at the DAACs in the capacity as system administrators. However the M&O staff will assist in the testing on a time available basis.
- The DAAC Engineering liaison coordinates all requests, including request for resources, software installs, and software merges.
- DAAC management approves all final resource schedules. Conflicts in resource requests will be resolved by DAAC management.
- All test performed by M&O will require detailed procedures. The M&O staff will not be responsible for inadequate or inaccurate procedures.
- The M&O staff will configure all software using the ClearCase tool. The Science Office will assist in this installations if necessary. The ITs will have access of their software in order to check-out components and to make modifications. However, only M&O personnel will be

allowed to merge modified software in with previous versioned software to create a new version.

- The M&O staff will only merge modified software into the VOB after the merge has been approved by DAAC management.
- All ECS problems are screened by the M&O staff before they are forwarded to the development office via email.

Approval Signature: _____ Date: _____

Zi012-00 TRMM Interface Test Support

Purpose and Scope:

The purpose of this instruction is to document the role of the M&O staff in support of the TRMM Interface Test activities.

Summary:

The M&O staff at the sites are primarily responsible the system administration activities needed to keep the Ir1 system configured and up and running. The ESDIS SMO and IV&V are primarily responsible for coordination of test support and resources with the DAAC Engineering liaison and approval from DAAC management. The M&O staff will be responsible for executing the test with supervision from the ESDIS IV&V contractor and ESDIS SMO. The M&O staff will perform trouble shooting and problem reporting.

Initiating Organization:

M&O

Approval Authority:

TBD

Affected Personnel:

M&O

Instruction:

- The interface testing is scripted by ESDIS SMO and the ESDIS IV&V contractor. They will determine the time and type of test. However, because of the limited functionality of Ir1 this test will be restricted to receiving data via the ingest server and verifying that the data has been placed and identified on the data server.
- All coordination with external interfaces will be the responsibility of ESDIS SMO.

Approval Signature: _____ Date: _____

Zi013-00 Updating the Operator's Manual

Purpose and Scope:

The purpose of this operations instruction is to detail when, how and who is responsible for updating the Operator's Manual. This instruction will be less formal in Ir1 as compared to that in Release A since Ir1 will not be supporting mission support/production activities but will be supporting testing activities.

Summary:

For Ir1 the Operator's Manual will not be formally updated, however changes to procedures and instructions will need to be documented so that they can be used for future Releases. These procedures will also be coordinated between the other three sites to verify if the updates/new procedures are applicable to them.

Initiating Organization:

M&O

Approval Authority:

TBD

Affected Personnel:

M&O and ECS users

Instruction:

- M&O staff person drafts a candidate procedure or instruction.
- The candidate procedure or instruction is read over by another staff member at the site to verify the procedure's/instruction's validity.
- The procedure is then tested to verify it's accuracy.
- If procedure is judged to be valid and accurate it authorized by the senior DAAC staff member to be included in routine operations or to replace existing procedures.
- The new procedure along with any scripts will then be presented to the other sites during the regularly scheduled M&O staff status telecon or via email to the other senior M&O staff.
- All updates to instructions or new instructions require the M&O Operations Manager's approval.

- The senior M&O staff member is responsible for all updates/additions to procedures.
- All modifications to the Operator's Manual will be kept in a informal copy of the manual located at the site. A copy of the modifications will be provided to the M&O staff located at the EDF to possibly be included in the Release A Operator's Manual.

Approval Signature: _____ Date: _____

Zi014-00 Security Policy

Purpose and Scope:

The purpose of this operations instruction is to detail the Security policy in place during the Ir1 time-frame.

Summary:

This instruction will briefly state the security policies that the M&O staff must follow during the Ir1 time frame. The policy will contain both system level security issues such as distribution of passwords for new users, and physical security issues.

Initiating Organization:

M&O

Approval Authority:

M&O

Affected Personnel:

M&O and ECS users

Instruction:

- Personnel at the sites must be aware and follow all security policies and regulations associated at that site.
- New users will be notified of a temporary password via the telephone, this password will be setup to expire immediately after the user log onto the system, forcing them to create a new password.
- New users will be given read, write, and execute privileges on only their personal, and group access directories. All other directories will be read, write and execute protected.
- Group access privileges will only be given to individuals that have permission from the Principle Investigator or designate in charge of the groups.

Approval Signature: _____ Date: _____

Zi015-00 Backup Policy

Purpose and Scope:

The purpose of this operations instruction is to detail the Backup policy in place during the Ir1 time-frame.

Summary:

This instruction will briefly state the frequency and conditions for backing up the ECS software and data.

Initiating Organization:

M&O

Approval Authority:

M&O

Affected Personnel:

M&O

Instruction:

- While ECS equipment is not being used, the M&O staff will perform weekly incremental backups and monthly complete system backups.
- During testing, the M&O staff will perform daily incremental backups and weekly complete system backups.
- A copy of the backups will be stored at an off site facility provided by the DAACs.
- The M&O staff shall maintain five incremental backups, and complete system backups before reusing tapes.
- Non scheduled backups can be requested at any time through the DAAC engineering liaison with DAAC management approval.
- The backup procedures should be scripted where ever possible.

Approval Signature: _____ Date: _____

Zi016-00 COTS Hardware Maintenance Procedures

Purpose and Scope:

The purpose of this instruction is to prescribe the procedures that will be followed by ECS personnel regarding COTS HW maintenance effort during Ir1.

Summary:

This instruction contains the problem detection, notification, and reporting procedures associated with the identification and resolution of Ir1 COTS HW problems. This procedure is based on *Release A COTS Maintenance Plan* (613-CD-002-001) and the *Release A Integrated Support Plan* (616-CD-001-002). The direction and guidance contained in these plans have been modified to reflect Ir1 capabilities.

Abbreviations Used:

COTS	Commercial Off The Shelf
CPU	Central Processing Unit
ECS	EOSDIS Core System
EDF	ECS Development Facility
EOSDIS	Earth Observing System Data and Information System
GSFC	Goddard Space Flight Center
HW	Hardware
ILS	Integrated Logistics Support
Ir1	Interim Release 1
LMC	Local Maintenance Coordinator
M&O	Maintenance and Operations
NASA	National Aeronautics and Space Administration
OEM	Original Equipment Manufacturer
SW	Software

Initiating Organization:

M&O

Approval Authority:

To Be Determined

Affected Personnel:

Site operations, logistics, and maintenance personnel; systems engineers; personnel at the ECS Project's help desk at the EDF (hereafter called help desk); the ILS Maintenance Coordinator; and OEM/third party maintenance providers.

Instruction:

1. Operators will perform normal operator tasks to isolate or resolve COTS HW problems when a problem is noticed (i.e., check power is connected, reboot, adjust external equipment controls, etc.). These tasks include using the operator manuals to:

   a. Isolate or resolve the problem by using site resources, such as the site master SW library to reload SW.

   b. Isolate the problem by performing fault diagnostics.

   c. Isolate the problem by troubleshooting.

      1) If it is determined to be a COTS SW problem, follow the COTS SW procedure (Zi017-00).

      2) If it is determined to be custom SW problem, follow the custom SW procedure (Zi006-00).

      3) If it is determined to be a COTS hardware problem, continue with this procedure ((Zi016-00).

2. If the problem is not corrected by the operator, the help desk is contacted by phone at 1-800-ECS-DATA (1-800-327-3282) or e-mail at "help@eos.hitc.com" and provided the specifics of the COTS HW problem and the equipment involved:

   a. Make and model of the system experiencing the problem.

   b. The name (handle) of the system, i.e., "RAINMAN", or the 8 digit property tag number (It is on a silver stick-on label that states: Property of NASA/GSFC NAS5-60000, the next line is a bar code, under the bar code is the 8 digit number, i.e., 00000XXX).

   c Date and time the HW problem occurred.

   d. Specific HW problem being experienced. Include:

      1) Operations attempted immediately prior to the problem.

      2) What indications, alarms, and/or error messages notified the user of the problem or what the system will not do because of the problem.

3) What diagnostics, troubleshooting, and/or corrective actions have been accomplished/attempted and results.

4) Impact of the COTS HW problem on site operations and Ir1 mission (minimal, distracting, urgent, or critical) and why.

5) Work-arounds attempted and results.

3. The help desk logs the call on a Trouble Ticket, assigns a Trouble Ticket number, and provides that number to the person reporting the problem. The operator, or his/her representative, should record the COTS HW Trouble Ticket number to reference in follow-up calls to or from the help desk.

   a. The help desk and the ILS Maintenance Coordinator follow the procedures below for problem resolution.

      1) The help desk assigns the COTS HW problem, including network HW, resolution task to an M&O engineer trained on and familiar with the type of equipment experiencing the problem. The engineer may contact site personnel or access the failed equipment remotely to gain addition problem information. If the source of the COTS HW problem can not be determined, or the problem is determined to be a COTS HW failure that can not be resolved using project resources, the engineer will notify the ILS Maintenance Coordinator.

      2) Using Trouble Ticket information, the ILS Maintenance Coordinator contacts the appropriate HW OEM/maintenance provider to obtain problem resolution assistance. The HW OEM/maintenance provider is provided a site contact (the operator) and phone number in order that the site support visit may be scheduled directly with site personnel. The HW vendor provides a task reference number which the ILS Maintenance Coordinator provides to the help desk who records it on the Trouble Ticket and also provides it to the operator.

   b. The OEM's/maintenance provider's service engineer is expected to telephone the site contact person within 4 hours to schedule a time to visit the site and make the repairs.

4. The operator will keep the help desk updated on the COTS HW problem's corrective actions and all status changes via telephone or e-mail. The help desk monitors the COTS HW problem, via the Trouble Ticket, until the problem is resolved and verified.

5. When the COTS HW problem resolution is verified by the operator, the help desk is notified of the following:

   a. Actions that resolved the COTS HW problem and their start/stop times.

   b. Part number, serial number, and product description of both the failed component and the replacement component.

   c. Identification of any COTS HW problem resolution delays, reasons, and the delay times.

6. Upon being informed of the COTS HW problem resolution, the help desk closes-out the Trouble Ticket. This includes recording:

a. Actions that resolved the COTS HW problem.

b. Part number, serial number, and product description of both the failed component and the replacement component.

c. Start and stop times for the problem resolution.

d. Delay time by reason for the delay and the delay time.

7. Information from the completed copy of the closed-out COTS HW Trouble Ticket is entered into the logistics database by the help desk

8. The closed-out COTS HW Trouble Ticket's disposition is determined by the help desk's procedures.

Approval Signature: _____ Date: _____

Zi017-00 COTS Software Maintenance Procedures

Purpose and Scope:

The purpose of this instruction is to prescribe procedures to be followed by ECS personnel regarding COTS SW maintenance support during Ir1.

Summary:

This instruction contains the problem detection, notification, and reporting procedures associated with the identification and resolution of Ir1 COTS SW problems. This procedure is based on *Release A COTS Maintenance Plan* (613-CD-002-001) and the *Release A Integrated Support Plan* (616-CD-001-002). The direction and guidance contained in these plans have been modified in this document to reflect Ir1 capabilities.

Abbreviations Used

COTS	Commercial Off The Shelf
CPU	Central Processing Unit
ECS	EOSDIS Core System
EDF	ECS Development Facility
EOSDIS	Earth Observing System Data and Information System
GSFC	Goddard Space Flight Center
ILS	Integrated Logistics Support
Ir1	Interim Release 1
M&O	Maintenance and Operations
NASA	National Aeronautics and Space Administration
SW	Software

Initiating Organization:

M&O

Approval Authority:

To Be Determined

Affected Personnel:

Site operations, logistics, and maintenance personnel; personnel at the ECS Project's help desk at the EDF (hereafter called help desk); and the ILS Maintenance Coordinator.

Instruction:

1. Operators will perform normal operator tasks to isolate or resolve COTS SW problems when a problem is noticed. These tasks include using the operator manuals to:

   a. Isolate or resolve the problem by using site resources, such as the site master SW library to reload SW.

   b. Isolate the problem by performing fault diagnostics.

   c. Isolate the problem by troubleshooting.

      1) If it is determined to be a COTS hardware problem, follow the COTS hardware procedure (Zi016-00).

      2) If it is determined to be custom SW problem, follow the custom SW procedure (Zi006-00).

      3) If it is determined to be a COTS SW problem, continue with this procedure (Zi017-00).

2. If the problem is not corrected by the operator, the help desk is contacted by phone at 1-800-ECS-DATA (1-800-327-3282) or by e-mail at "help@eos.hitc.com" and provided the specifics of the COTS SW problem and the equipment involved:

   a. Make and model of the HW experiencing the SW problem.

   b. The name (handle) of the system, i.e., "RAINMAN", or the 8 digit property tag number (It is on a silver stick-on label that states: Property of NASA/GSFC NAS5-60000, the next line is a bar code, under the bar code is the 8 digit number, i.e., 00000XXX).

   c Date and time the SW problem occurred.

   d. Specific SW problem being experienced. Include:

      1) Name and version of the SW and operating system involved as well as any other SW that is part of the problem.

      2) Operations attempted immediately prior to the problem.

      3) What indications, alarms, and/or error messages notified the user of the problem or what the applications will not do because of the problem.

      4) What diagnostics, troubleshooting, and/or corrective actions have been accomplished/attempted and results.

5) Impact of the COTS SW problem on site operations and Ir1 mission (minimal, distracting, urgent, or critical) and why.

6) Work-arounds attempted and results.

3. The help desk logs the call on a Trouble Ticket, assigns a Trouble Ticket number, and provides that number to the person reporting the problem. The operator, or his/her representative, should record the COTS SW Trouble Ticket number to reference in follow-up calls to or from the help desk.

   a. The help desk and the ILS Maintenance Coordinator follow the procedures below for problem resolution.

      1) The help desk assigns the COTS SW problem, including network SW, resolution task to an M&O engineer trained on and familiar with the type of equipment and SW combination experiencing the problem. The engineer may contact site personnel or access the failed equipment remotely to gain addition problem information. If the source of the COTS SW problem can not be determined, or the problem is confirmed to be a COTS SW failure that can not be resolved using project resources, (i.e., reloading SW, installing patches, etc.) the engineer will notify the ILS Maintenance Coordinator.

      2) Using Trouble Ticket information, the ILS Maintenance Coordinator contacts the SW vendor to obtain problem resolution assistance. The SW vendor is provided a site contact (the operator) and phone number in order to expedite direct telephonic support. The SW vendor provides a task reference number which the ILS Maintenance Coordinator provides to the help desk who records it on the Trouble Ticket and also provides it to the operator..

   b. The vendor's service engineer is expected to telephone the site contact person within 1 hour to discuss the COTS SW problem and to make recommendations for resolving it. The SW vendor's service engineer may request a core dump or other data be provided for analysis. The operator will make these arrangements for the Project.

   c. In some instances the SW vendor's service engineer may not be able to resolve the SW problem via telephone conversations and analysis of data dumps. In rare cases, a site visit may be possible. The operator will make the necessary arrangements for such a visit per local site directives.

4. The operator will keep the help desk updated on the COTS SW problem's corrective actions and status changes via telephone or e-mail. The help desk monitors the COTS SW problem, via the Trouble Ticket, until the problem is resolved and verified.

5. When the COTS SW problem resolution is verified by the operator, the help desk is notified of the following:

   a. Actions that resolved the COTS SW problem and their start/stop times.

   b. Name and version of any new COTS SW or patch used to correct the problem.

   c. Identification of any COTS SW problem resolution delay, reason, and the delay time.

6. Upon being informed of the problem resolution, the help desk closes-out the Trouble Ticket. This includes recording:
    a. Actions that resolved the COTS SW problem.
    b. The name and version of any new COTS SW or patch used to correct the problem.
    c. Start and stop times for the problem resolution.
    d. Delay times and reasons therefor.
7. Information from the completed copy of the closed-out Trouble Ticket is entered into the logistics database by the help desk.
8. The closed-out COTS SW Trouble Ticket's disposition is determined by the help desk's procedures.

Approval Signature: _____ Date: _____

Zi018-00 Property Procedures

Purpose and Scope:

This document describes the process and procedures to be followed by ECS contractor personnel at DAACs in the property management, accountability, and reporting of Contractor-acquired commercial-off-the-shelf (COTS) hardware and software and Government-furnished property (GFP).

Summary:

These procedures specify how ECS will be managed during Ir1 from time of receipt until disposition or turnover to the Government.. These procedures are based on the ECS contract requirements and the *ECS Property Management Plan* (602-CD-001-001). The policies of the ECS Property Management Plan provide the foundation for the procedures contained within this document and take precedence over this document. The direction and guidance contained in this document are specific to Ir1 and may be modified at a later date to address requirements of later ECS releases.

Abbreviations Used:

COTS	Commercial Off The Shelf
ECS	EOSDIS Core System
EDF	ECS Development Facility
EOSDIS	Earth Observing System Data and Information System
GSFC	Goddard Space Flight Center
HW	Hardware
ILS	Integrated Logistics Support
Ir1	Interim Release 1
M&O	Maintenance and Operations
NASA	National Aeronautics and Space Administration
OEM	Original Equipment Manufacturer
SW	Software
TBD	To Be Determined

Initiating Organization:

Maintenance and Operations (M&O) Office

Approval Authority:

TBD

Affected Personnel:

Site M&O personnel; ECS Science liaison personnel: EDF Help Desk personnel; M&O ILS Office personnel; ECS Property Administration personnel.

Instruction:

1. Responsibility.

The senior ECS M&O representative at the site is responsible for the administration of ECS equipment and software at the site and for the execution of property administration functions in accordance with these procedures and the ECS Property Management Plan. If this function is delegated to another ECS individual, the senior M&O representative will notify Bob Byrnes, the ECS Property Administrator, via Internet message, rbyrnes@eos.hitc.com, of such delegation.

2. Receiving of ECS Property.

Upon receipt of ECS equipment or software, ECS personnel will perform an equipment inspection to verify equipment content, quantity, and any visible evidence of shipping damage. Receiving personnel will verify the number of pieces against the shipper's bill of lading and the condition of the material received. Any visible shipping damage will be noted on the bill of lading and reported immediately to the ECS Property Administrator. The receiving individual will then sign the bill of lading, accepting responsibility for the equipment. The signature of the carrier’s representative will be obtained when container shortages and other transit related discrepancies are identified. Misdirected or other discrepant property will be segregated and controlled pending disposition instructions from the ECS Property Administrator or shipper.

3. Inventory.

The property is then moved from the loading dock to a controlled area for unpacking and a detailed component level inventory. Item identification, configuration, and quantity are matched against the equipment packing slip or the detailed configuration list supplied by the ECS Property Administrator. Discrepancies will be recorded and provided to the ECS Property Administrator for resolution. Applicable manufacturer model number, part number, and serial numbers will be recorded on the detailed configuration list. ECS property will be placed in a secure, controlled area until installation.

4. Property Identification.

All ECS equipment that is separately identifiable and meets the criteria for centrally reportable equipment described in NASA FAR Supple 18-45.505-670 will be marked with an ECS equipment identification number (EIN) immediately after being unpacked by property administration personnel. Equipment shipped to the site from the ECS Development Facility

(EDF) will have already been tagged. ECS equipment received directly from vendors will be marked so as to distinguish it as ECS government equipment, as described in the ECS Property Management Plan.

5. Property Records.

During Ir1 ECS property at the site will be recorded in an Excel spreadsheet maintained by the site Property Administrator. At time of installation, the installation team will provide a detailed listing of all equipment and software installed, with EIN and serial numbers, as applicable. The site property administrator is responsible for keeping this spreadsheet current as property changes occur and for reporting such changes to the ECS Property Administrator. The ECS Property Administrator will maintain the master property data base for all sites, which will be used for monthly, quarterly, and annual property reporting to the Government, as described in the ECS Property Management Plan.

6. Storage.

ECS equipment and software will be stored in a controlled, secure area any time it is not installed or in use by ECS personnel The storage area shall provide for clean, padded storage conforming to environmental controls for temperature, humidity, and electrostatic discharges as established in the ECS Environmental Control Plan. Access will be limited to authorized personnel only and entry will be controlled. ECS property tags will be placed on all ECS equipment during use and while in storage to distinguish it as ECS property.

Site property administrators will perform inventories of ECS property on a quarterly basis. These inventories will be conducted in a manner that results in 100 percent of ECS site property being inventoried annually. Results of the inventory, including discrepancies, will be reported to the ECS Property Administrator within 5 days of the inventory. Upon resolution of discrepancies, the ECS Property Administrator will enter inventory adjustments to the ECS property data base. Site property administrators will then adjust site property records accordingly.

Site performance assurance personnel will audit the site property records and quarterly inventory results at least annually. Such audits will verify property administration procedures are being followed and inventories have been conducted in a manner that results in accurate accountability. Site performance assurance personnel shall submit to the ECS Quality Office the results of each annual audit and maintain a historical file of audit results.

Note: Because Ir1 equipment will not be in for more than 6 months when Release A equipment is installed, this audit will be performed in conjunction with the installation of equipment for Release A.

7. Reporting Loss or Damaged Property

If site ECS property is lost, damaged, or destroyed, the site property administrator will immediately notify the ECS Property Administrator and supply the information specified in paragraph 4.2.4 of the ECS Property Management Plan.

8. Movement.

Ten working days prior to shipping equipment to ECS sites, the ECS Property Administrator will deliver an ECS Shipping Report to the site Property Administrator and DAAC Manager. The Shipping Report will alert all parties involved of the expected shipment date, carrier, shipping document number, estimated weight and cube, number of pieces, shipper, and ship-to address.

Prior to shipment, a pre-shipment inspection will be performed to verify the following:

a. Correct identification of equipment on packing lists and shipping documents including configurations, serial numbers, number of containers, and ship-to address.

b. Adherence to packaging and marking standards

c. Inclusion of appropriately prepared documents with shipping containers

Generally, ECS property being shipped from vendors and the EDF will be shipped directly to and received by the site Property Administrator. Local policy at some sites may require delivery to a site central receiving point. In such cases, written procedures will be developed between the site Property Administrator and site's central receiving office regarding notification of receipt, documentation required, and provisions for local delivery to the ECS facility. The delivery of ECS equipment to site central receiving points versus direct delivery to the ECS facility will be determined on a site-by-site basis by the ILS Manager.

8.1. Intra-site Relocations

Requirements for equipment relocation within the facility or between facilities at the same site will be completed by the site Property Administrator to maintain control and accountability of equipment inventories. The site property administrator will document and approve or disapprove the request and schedule the relocation. When completed, the relocation will be recorded by the site Property Administrator by entering the new location into the property record and reporting it to the ECS Property Administrator.

8.2. Inter-site Relocations

Requests to relocate equipment to another ECS site (or to a non-ECS site) will be forwarded by the losing site's Property Administrator to the ECS Property Administrator. Such requests will identify by EIN, serial number, and equipment description what is to be moved, where and when it is to be moved, and the reason for the relocation. The ECS Property Administrator will coordinate the relocation resources and schedule between the losing and gaining Property Administrators. Once completed, the gaining Property Administrator will report completion of the relocation to the ECS Property Administrator, who will update the property record with the new location and date of the action. Inter-site relocations will be reported to the GSFC Supply and Equipment Management Office by the ECS Property Administrator.

8.3. Off-Site Vendor Repairs

For equipment returned to a vendor for repair, the site property administrator will record the action, referencing the Trouble Ticket number, and retain the record as a "pending action" until the item is returned. The Trouble Ticket will be annotated with date of shipment, expected return date, and vendor point of contact. Status code "F" (out for repair) will be entered into the property record. Property tags will not be removed. Once returned, the date of return will be

recorded on the Trouble Ticket and serial number and EIN verified. The equipment status code in the property record will be changed to reflect status “A” (available/in-stock). In the event the original equipment is replaced by the vendor because it is beyond repair, the site Property Administrator will recover the property tag from the vendor, record the item as unserviceable/non-repairable, and initiate actions described in Section 3.6 of the Property Management Plan to obtain relief from accountability.

Approval Signature: _____ Date: _____

Zi019-00 Report Generation at the DAACs

Purpose and Scope:

This instruction details the type of reports and frequency in which the report will be generated at the DAACs.

Summary:

This instruction will detail the types of reports that are going to be generated, the frequency in which they will be generated, and who will receive these reports once they are generated.

Initiating Organization:

M&O

Approval Authority:

ESDIS

Affected Personnel:

EDF M&O personnel

Instruction:

- The following reports would be generated manually by use of Excel spreadsheets:
  - total hardware downtime broken down by hardware, activity, and impact (generated monthly)
  - mean time to repair for each failed component in average number of hours to bring the component back on-line (generated by request of ECS, DAAC, or ESDIS management)
  - system utilization by activity (generated by request of ECS, DAAC, or ESDIS management)
  - planned vs. actual system utilization per site (generated by request of ECS, DAAC, or ESDIS management)
- Event reports will be generated at the request of testers and the sustaining engineer
- All regular reports will be delivered to the SMC by the last Monday of the month

- A copy of all reports will be sent to the DAAC Manager, ECS Engineering liaison, and the SMC

Approval Signature: _____ Date: _____

Zi020-00 Network and DCE Configuration During Ir1

Purpose and Scope:

The purpose of this operations instruction is to specify configuration of all servers and workstations that will be used during Ir1. This configuration includes all DCE cells that are in existence during Ir1.

Summary:

Table that matches the servers and workstations used in Ir1 and indicates their function in the DCE cell.

Initiating Organization:

M&O

Approval Authority:

M&O

Affected Personnel:

M&O

Instruction:

System-Type	CSMSCELL Ir1 Development	DTS Servers	ECSCELL Ir1 Production	EDFCELL Development	EPCELL EP's Production	DCE SERVER MACHINE
HP 715/50/OS 9.05				1		
Sun SPARC / OS 2.4				1		
Sun Sparc +5	1	1				
Sun SPARC / OS 2.4				1		
Sun SPARC / OS 2.4				1		
HP 715	1	1				**1**
SGI					1	
DEC ALPHA/3000				1		
DEC ALPHA/3000					1	
Sun SPARC / OS 2.4				1		
DEC ALPHA/3000	1					
HP 715				1		

System-Type	CSMSCELL Ir1 Development	DTS Servers	ECSCELL Ir1 Production	EDFCELL Development	EPCELL EP's Production	DCE SERVER MACHINE
Sun SPARC / OS 2.4				1		
Sun Sparc						
HP		1	1			**1**
HP 715/50/OS 9.05				1		
Sun SPARC / OS 2.4				1		
HP 715/OS 9.05				1		
SGI 64 bit			1			
Sun SPARC / OS 2.4			1			
SGI INDY			1			
DEC ALPHA/3000					1	
DEC ALPHA/3000					1	
HP 715/50/OS 9.05					1	
HP 715/50/OS 9.05					1	
HP 715/50/OS 9.05					1	
HP 715/50/OS 9.05					1	**1**
HP 735/OS 9.05				1		
Sun SPARC / OS 2.4				1		
Sun SPARC / OS 2.4				1		
Sun SPARC / OS 2.4				1		
Sun SPARC / OS 2.4				1		
Sun SPARC / OS 2.4	1					
HP 715/50/OS 9.05					1	
SGI INDGO 2			1			
Sun SPARC / OS 2.3	1					
Sun SPARC / OS 2.4				1		
Sun SPARC / OS 2.4				1		
HP 715/50/OS 9.05				1		
SGI 32bit	1					
Sun SPARC / OS 2.4				1		
Sun SPARC / OS 2.4				1		
DEC ALPHA/3000					1	
Sun SPARC / OS 2.4	1					
Sun SPARC / OS 2.3				1		
HP		1	1			
Sun SPARC / OS 2.4		1	1			
Sun SPARC / OS 2.4		1		1		
DEC ALPHA/3000				1		
Sun SPARC / OS 2.4						
IBM RS6000					1	
Sun SPARC / OS 2.4		1		1		
Sun SPARC / OS 2.4				1		

System-Type	CSMSCELL Ir1 Development	DTS Servers	ECSCELL Ir1 Production	EDFCELL Development	EPCELL EP's Production	DCE SERVER MACHINE
HP 715/OS 9.05					1	
Sun SPARC / OS 2.4	1					
Sun SPARC / OS 2.4				1		
Sun SPARC10/OS 2.3					1	
Sun SPARC / OS 2.3	1	1				
Sun SPARC / OS 2.4				1		
Sun SPARC / OS 2.4		1		1		
HP 715/50/OS 9.05					1	
Sun SPARC / OS 2.4				1		
Sun SPARC / OS 2.4				1		
Sun SPARC / OS 2.4				1		
HP 715/OS 9.05					1	
HP 715/50/OS 9.05					1	
HP 715/50/OS 9.05				1		
HP 755				1		**1**
	9		**7**	**34**	**16**	
		9				
						4

Ir1 IP Addresses and Mail/NIS Servers

IP Addresses	Names	Mail/NIS Server
192.150.28.111	dps1sgiedf.gsfc.nasa.gov	yes
192.150.28.112	mss2sunedf.gsfc.nasa.gov	
192.150.28.113	mss1hpedf.gsfc.nasa.gov	
192.150.28.114	css1hpedf.gsfc.nasa.gov	
192.150.28.115	spr2ncdedf.gsfc.nasa.gov	
192.150.28.116	ait1sunedf.gsfc.nasa.gov	
192.150.28.117	icl1sgiedf.gsfc.nasa.gov	
192.150.28.118	mss3hpedf.gsfc.nasa.gov	
192.150.28.119	spr3sgiedf.gsfc.nasa.gov	
198.116.56.140	spr1sgimsfc.msfc.nasa.gov	yes
198.116.56.141	spr2ncdmsfc.msfc.nasa.gov	
198.116.56.142	ait1sunmsfc.msfc.nasa.gov	
198.116.56.143	ait2sunmsfc.msfc.nasa.gov	
198.116.56.144	ait3hpmsfc.msfc.nasa.gov	
198.116.56.145	mss2hpmsfc.msfc.nasa.gov	
198.116.56.146	mss1sunmsfc.msfc.nasa.gov	
198.116.56.147	icl1sgimsfc.msfc.nasa.gov	
198.116.56.148	unassigned	
198.116.56.149	unassigned	
192.107.195.9	spr1sgiedc.cr.usgs.gov	yes
192.107.195.10	ait1sunedc.cr.usgs.gov	
192.107.195.11	mss1sunedc.cr.usgs.gov	
192.107.195.13	spr2ncdedc.cr.usgs.gov	
192.107.195.14	spr3ncdedc.cr.usgs.gov	
192.107.195.15	iss1hubedc.cr.usgs.gov	
192.107.195.16	mss2hpedc.cr.usgs.gov	
192.107.195.17	ait2hpedc.cr.usgs.gov	
192.107.195.18	ecshp1.cr.usgs.gov	
192.107.195.19	ecsalphal.cr.usgs.gov	
192.107.195.20	ecspcl.cr.usgs.gov	
192.107.190.90	spr1sgigsfc.gsfc.nasa.gov	yes
192.107.190.91	spr2ncdgsfc.gsfc.nasa.gov	
192.107.190.92	spr3ncdgsfc.gsfc.nasa.gov	

IP Addresses	Names	Mail/NIS Server
192.107.190.93	ait1sungsfc.gsfc.nasa.gov	
192.107.190.94	ait2sungsfc.gsfc.nasa.gov	
192.107.190.95	ait3hpgsfc.gsfc.nasa.gov	
192.107.190.96	icl1sgigsfc.gsfc.nasa.gov	
192.107.190.97	mss1sungsfc.gsfc.nasa.gov	
192.107.190.98	mss2hpgsfc.gsfc.nasa.gov	
192.107.191.60	spr1sgilarc.larc.nasa.gov	yes
192.107.191.61	spr2ncdlarc.larc.nasa.gov	
192.107.191.62	spr3ncdlarc.larc.nasa.gov	
192.107.191.63	spr4ncdlarc.larc.nasa.gov	
192.107.191.64	ait1sunlarc.larc.nasa.gov	
192.107.191.65	ait2sunlarc.larc.nasa.gov	
192.107.191.66	ait3hplarc.larc.nasa.gov	
192.107.191.67	mss2hplarc.larc.nasa.gov	
192.107.191.68	mss1sunlarc.larc.nasa.gov	
192.107.191.69	icl1sgilarc.larc.nasa.gov	

Approval Signature: _____ Date: _____

Zi021-00 Operator's Log Books

Purpose and Scope:

The purpose of this operations instruction is to specify what the operator's log books are, how often they update the logs, and the type of information in the logs.

Summary:

This instruction will detail where, when and what information are contained in the operator's logs.

Initiating Organization:

M&O

Approval Authority:

M&O

Affected Personnel:

M&O

Instruction:

- The current Operator's log will be maintained in hard copy in central location in the operations area. This area will be known to all M&O staff, DAAC liaisons, and DAAC management.
- The log will be updated after every shift that is worked by the senior M&O person, or anyone else that has important information that needs to be logged.
- The log should contain the time and date of the entry, name of person making entry, and all important information needed.
- This information could include:

  system names, people's names and phone numbers, files, backup tapes, etc.
- All important data such as phone numbers and contacts should be maintained at the front of the log.
- When a log is filled it will be archived in a known location and a new log started. All important information will be copied into the new log.

Approval Signature: _____ Date: _____

Appendix A. List of Ir1 DAAC Engineering Liaisons

DAAC	Name	Number & email
GSFC	Carolyn Whitacker	phone: 301-286-3997 email: cwhitake@eosgsfc1.gsfc.nasa.gov
LaRC	TBD	
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Abbreviations and Acronyms

ACL	access control list
ADC	affiliated data center
CDRL	contract data requirements list
COTS	commercial off-the-shelf
CPU	central processing unit
DAAC	Distributed Active Archive Center
DCE	Distributed Computing Environment
DID	data item description
DTS	Distributed Time Service
ECS	EOSDIS Core System
EDC	EROS Data Center
EDF	ECS Development Facility
EDHS	ECS Data Handling System
EOS	Earth Observing System
EOSDIS	Earth Observing System Data and Information System
ESDIS	Earth Science Data and Information System
GSFC	Goddard Space Flight Center
GUI	graphic user interface
I&T	integration and test
I/F	interface
I/O	input/output
ID	identification
Ir1	Interim Release One
IV&V	independent verification and validation
JPL	Jet Propulsion Laboratory
LAN	local area network
LaRC	Langley Research Center (DAAC)
MTBF	mean time between failure

MTTR	mean time to restore
NCR	Non-conformance Report
NESDIS	National Environmental Satellite Data and Information Service
NMC	National Meteorological Center (NOAA)
PDPS	Planning & Data Production System
PGE	product generation executable
PGS	Product Generation System (obsolete ECS element name) (ASTER)
QA	quality assurance
SCF	Science Computing Facility
SDP	Science Data Processing
SDPF	Sensor Data Processing Facility (GSFC)
SMC	System Management Center (ECS)
SSI&T	Science Software Integration and Test
TBD	to be defined
TBD	to be determined
TRMM	Tropical Rainfall Measuring Mission (joint US-Japan)
TSDIS	TRMM Science Data and Information System
V0	Version 0
WAN	wide area network
WWW	World-Wide Web